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ARCHEOLOGICAL INVESTIGATIONS
AT THE RUSSIAN BISHOP'S HOUSE
1981
SITKA NATIONAL HISTORICAL PARK
SITKA, ALASKA

by Catherine Holder Blee

with

Faunal Analysis

by Diane Lee Rhodes

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ABSTRACT

Fifteen one meter square archeological test units were placed in the yards of the Russian Bishop's House, Old School and Priest's Residence at Sitka National Historical Park, Sitka, Alaska. The archeological investigations were conducted to assess the significance of archeological deposits before construction was begun on utility lines and new foundations. This report presents the detailed results of 12 of these tests and a synopsis of the remaining three. Events leading to the formation of the uncovered deposits are described. The author also discusses the horizontal distribution of artifacts across the site in the 19th and 20th centuries. In particular, non-structural artifact, nail and window glass densities revealed certain types of distributional patterning. In addition, a model for the frequency distribution of bottle glass colors through time is discussed as a dating tool. The report concludes with recommendations for archeological clearance of construction projects in certain areas and delineates those places where monitoring of construction activities would be advisable.

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INTRODUCTION

Sitka was the capital of Russian America until Alaska was sold to the United States in 1867. When San Francisco was still a sleepy Spanish mission, Sitka was known as the "Paris of the Pacific." As such, it is one of the oldest Euro-American communities on the west coast of North America.

The excavations reported herein were conducted in the summer of 1981 in preparation for utility line installation and landscaping at the Russian Bishop's House. In addition, it was anticipated that new foundations would be placed under two nearby ancillary structures. These excavations included tests on the Priest's Residence and Old School as well. During tests at the Old School, a highly significant Russian period trash pit was encountered which may prove to be one of the more important archeological resources from the Russian occupation of Alaska yet found in the state. The results of the excavation of that feature will appear in another volume.

BACKGROUND INFORMATION

The following background information is included to acquaint the unfamiliar reader with the environment and history of the Sitka area. More exhaustive descriptions can be found in other sources dedicated to that specific purpose. For the most part, this description will focus on aspects of the environment which most affect the way archeological resources are deposited and appear in the ground, and how that environment affects the resource's general state of preservation. It will also mention those natural resources which would have been available to both native and European peoples living in the Sitka area.

GEOGRAPHY

The town of Sitka, Alaska, is situated on the west coast of Baranof Island, part of the Alexander Archipelago in the southeast panhandle of the state (figure 1). It is on the north side of Sitka Sound, a large natural bay protected by numerous islands from the often turbulent Alaska Gulf. The sound is surrounded by the steep sided mountains of the Coast Range, composed of Mesozoic greenstones and graywackes. The most striking landmark in the Sitka vicinity is Mt. Edgecumbe, a 3,201 foot volcanic cone which guards the north entrance to Sitka Sound. This volcano is about 7000 years old; its most recent eruptions could be remembered by natives as late as 1840, indicating it last erupted in the 18th century (Simkin et al. 1981:84; Reed 1958: 12, 14; DeArmond 1978:163; Alaska Geographic 1978:103). Mt. Edgecumbe was named by Capt. James Cook when exploring the southeast Alaska coast in 1778 (DeArmond 1978:3).

People and goods arrive in Sitka today by sea or air. It is on the regular route of the Alaska Marine Highway system and Alaska Airlines makes four daily stops at the airport. In addition, Sitka is a popular place for luxury cruise ships' visits. Juneau lies 120 miles by air to the northeast.

CLIMATE

Sitka is in the Maritime Climatic Zone, which experiences relatively high precipitation and mild temperatures with little daily or seasonal variation. Most of the average 96.6 inches of precipitation a year fall as rain, from mid-summer to late winter; the average October rainfall is 15.3 inches, while in June only an average of 3.5 inches fall. Of the 28 days of field work in June and July, it rained on 19 days. The average temperature is 43.3°F, with the average daily minimum in January as 26.7° and the average daily maximum in August being 62.0°. From February through November, temperatures are in the 40's and 50's for at least part of the day (Searby 1970:2, and Goodrich 1983).

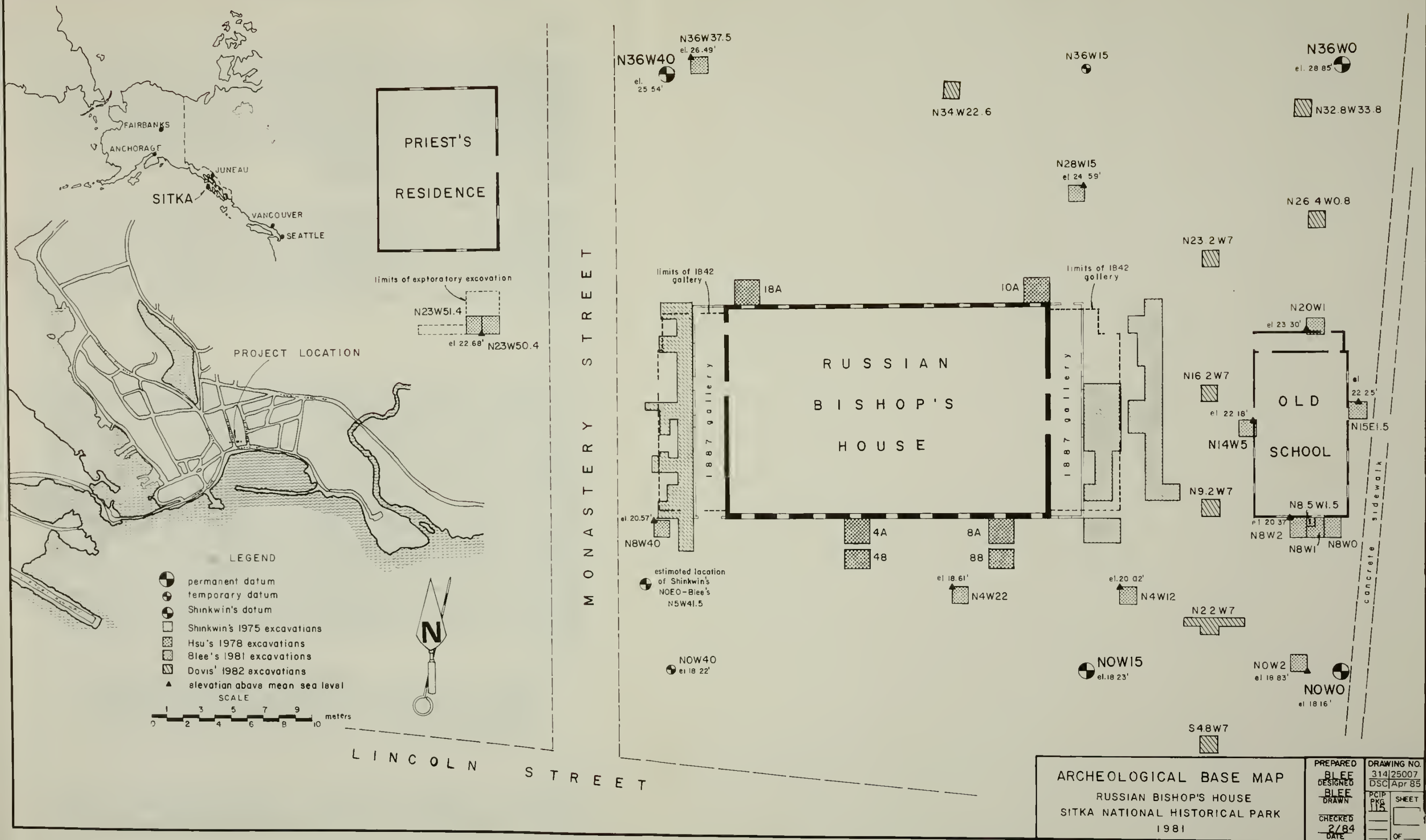


Figure 1: Archeological base map and site location.

SOILS

In 1979, four soils tests were performed in the vicinity of the archeological work described in this report. The tests were conducted by a soils engineer working for Pacific Testing Laboratories under contract to the National Park Service. He reported a submaterial of native beach deposits consisting of sandy gravel with no plasticity characteristics, and all cobbles under six inches in diameter. The company analyzed the soils only for aggregate size and moisture content, but did not do any analysis of angle of repose or the organic content, nor did they mention the presence or absence of stratigraphy.

This author found the soils at the Russian Bishop's House site to be composed primarily of beach sands covered by humic soils which have accumulated since European occupation of the site. This very recent soil accumulation was no doubt started by the mere presence of the building which protected newly formed organic soils from eroding or washing away, and was probably assisted by the introduction of organics to aid limited agricultural attempts. Some imported gravel and fills were also found on the site.

FLORA

The natural environment surrounding Sitka is a typically southeast Alaska rain forest. Hemlock and spruce comprise the overstory with alder, dense ferns and bushes underneath. A thick mat of moss and lichens covers the ground (Goodrich 1983). Mid-19th century Russian records indicate that some wild plant foods were purchased from the local Tlingit population which had no doubt used these materials often. Smilax, cowparsnip, hemlock, parsley, raspberry leaves, and raw berries were common in the area (Blaschke 1842). The Russians did try to do some gardening, and the efforts apparently persist today with the appearance of an occasional back yard garden. The Russians grew potatoes, turnips, radishes, rutabagas, carrots, and beets. With the use of hot frames, sometimes cabbage, lettuce and cucumbers were grown, but with mixed reports as to the success (Blaschke 1842; Dmytryshyn and Crownhart-Vaughn 1979; Pierce and Donnelly 1978: 369; and Gibson 1976: 98, 100). The relative lack of success in agriculture was largely due to the gravelly soils and constant rain. Because grain could not be grown and the wet climate precluded the cutting and drying of hay, livestock was only rarely kept. This created a severe shortage of manure for fertilizer.

Animal manure was so scarce that seaweed (especially sea cabbage) was used as a fertilizer, and at New Archangel [Sitka] the gravelly soil was also fertilized with herring roe, fish remains, ground mussels, chopped twigs, and leaves (Gibson 1976: 107).

FAUNA

In the area immediately around Sitka, few large animals are to be found due to the immediate presence of people. However, bald eagles appear to

have little fear of the town and are a common sight. Gulls, shore birds and ravens are quite common as well. Red squirrel inhabits the nearby forests (Goodrich 1983). The most common large mammal is the Sitka black-tailed deer. Harbor seal, sea otter, sea lion, brown bear, whale, and mountain goat inhabit the island's environs (LeResche and Hinman 1973). Pink salmon, Coho salmon, chum salmon, and Dolly Varden char migrate up the streams in the Sitka area. The community today sport fishes for Dolly Varden, herring, salmon, shrimp, crab and halibut (McLean and Delany, 1978). Sitka was one of the earliest communities in Alaska to have a cannery, which opened in 1878 and primarily canned salmon (Alaska Geographic 1978: 115, 117).

The official history of the Russian American Company, compiled by P. A. Tikhmenev in 1861 lists the following animals in the vicinity of New Archangel: eagles, blue magpies, grey woodpeckers, swans, geese, hummingbirds, redbreast, snipes, woodcocks, red salmon, dog salmon, silver salmon, humpback salmon, king salmon, halibut, and herring. The only mammals he lists for the Sitka area are iaman, brown bear, sea otter, and hair seal (Pierce and Donnelly 1978: 421-422).

The "wild chamois" or iaman reported repeatedly by the Russians were most likely the Sitka black-tailed deer. Mountain goats were introduced to the island in 1923 and did not exist there before (Johnson 1984; Hughes 1984; Dufresne 1946: 22, 45; Rhode and Barker 1942: 22; and Reardon 1981: 95). As will be shown in the faunal analysis, deer bones are present at this site, but no goat or sheep. While English translations of Russian records invariably specify wild mutton, wild sheep, chamois, iaman, or wild goats, the early American references are always to deer or venison. Records of visiting English-speaking ship captains refer to deer being procured in the neighboring forests, but no mention is made of wild sheep or goats (Dmytryshyn and Crownhart-Vaughn 1979; Gibson 1976, Blaschke 1842; Collinson n.d.; Laufe 1962; Pierce and Donnelly 1978).

The translators of Tikhmenev's history comment on the difficulty of translating names of plants and animals due to the absence of scientific names. They mention that olen' is sometimes translated as "caribou" and sometimes as "deer" (Pierce and Donnelly 1978: viii). This may indicate that the Russians tended to think of a deer as a caribou-like animal and the gracile Sitka black-tailed deer as a goat-like animal. To further demonstrate the elusiveness of the terms, Tikhmenev states that "Near the Chil'kat River are found . . . mountain sheep, the wool from which the natives use for making mantles" (Pierce and Donnelly 1978: 422). The Chil'kat blanket is well-known in Alaska; it was made of mountain goat hair, not mountain sheep. It is obvious from this statement that the animals Americans call mountain goats were regarded as mountain sheep by the Russians. Therefore, the iaman was not a mountain goat. For the rest of this report, the authors assume that the Russian iaman was the Sitka black-tailed deer.

The Russians in Sitka were largely dependent on the Tlingits for provision of fresh meat. They traded for deer, halibut, grouse, ducks, geese, salmon, and herring (Gibson 1976: 13,840, 102, 214; Dmytryshyn and Crownhart-Vaughn 1979: 36, 38; Blaschke, 1842; Pierce and Donnelly 1978: 369). In times of extreme hunger, sea mammals, eagles, crows and cuttlefish were eaten (Gibson, 1976: 14, 40).

Even after the U.S. purchase of Alaska in 1867, the local wild food sources remained important. An Army post doctor's wife reports in 1876:

We have a roast of venison for dinner. How I hate it. It is a thing one will tire of soon, but for several days every week we have to depend upon the Indian market. The things are cheap enough, but I don't like game. We have mallard ducks and teal ducks often, and grouse, too. The nicest thing I have had was a pheasant I got. . . But I hate venison. We buy a hind quarter for 50 cents (four bits, they say) and often can get both hind and forequarter for the same. Beef is only issued to us once a week and we can't get much more than 20 to 25 pounds. You know that won't last such meat eaters as Doctor and me a week. I believe they have fish in great abundance here sometimes in the year, but this is not the fish season (Laufe 1962: 61).

Later she states: "When the tide is out, the beach is covered with Indians and Russians getting clams" (Laufe 1962: 178).

Domestic cattle seem to have been rare in the community. During the Russian period there were rarely more than a dozen head of cattle. Captain Collinson, visiting in 1850 for supplies found only four cows (DeArmond 1978: 154). In 1860, the Russian inspector Golovin found only five or six cows and four horses on all of Baranof Island (Gibson 1976: 102). As late as 1876, the Americans were still having difficulty keeping livestock. Doctor and Mrs. Fitzgerald, who owned a cow for milk for their small children because no one else did, also owned the only horse in the Territory (Laufe 1962: 86, 172).

The only domestic animals observed by this author in Sitka were pets, including dogs, cats, goats, ducks, chickens, geese and rabbits. Both Russians and later Americans commented on the large number of dogs in the community.

HISTORICAL SUMMARY

The following historical summary is only meant as an introduction to the history of Sitka for the general reader unfamiliar with the resource. Since most of the information is common knowledge, very few references are cited in the text. The reader wishing more information should see Mote (1981), Chevigny (1965), Hinkley (1972), Calvin (1936), Andrews (1922) and Alaska Geographic (1978).

The explorations of Vitus Bering in the Bering Sea culminated on July 13, 1741 with the sighting of Mt. St. Elias on the Alaska mainland. His "discovery" of Alaska created a new frontier for the eastward moving promishlennik (Russian fur trader) constantly looking for new hunting and trading grounds. In crude boats more suitable for river travel than the treacherous Arctic open seas, these men crossed through the Aleutian Islands to Kodiak and the mainland beyond. Competition for furs became so keen by 1797, that trade was no longer productive for any of the many minor fur companies operating in southwest Alaska. A charter was

granted to the Russian-American Company by Emperor Paul I creating a single, government recognized monopoly on the fur trade of Russian occupied America. The chief manager appointed in the Russian colonies was the merchant Alexander Baranof.

Part of Baranof's mission in Alaska was to expand Russia's influence eastward along the coast of North America. Some officials even had in mind the securing of the west coast south to Spain's holdings in California. One of Baranof's first moves was to establish a colony nine miles north of present day Sitka in 1799. He had bargained shrewdly with the Tlingit Indians living at Sitka, taking what he considered a less desirable piece of land some distance from the already existing village. Although history does not record the day-to-day tensions existing between Tlingit and Russian, it is apparent that the native population soon found the Russians difficult neighbors. In June, 1802, the outpost was attacked and most of the occupants killed. The few survivors who were outside at the time of attack were rescued by a passing English vessel a few days later and returned to Kodiak, then colonial headquarters of the Russian American Company.

Baranof, determined to colonize Sitka, mounted a campaign to eliminate the obstacle to his success. In September, 1804, with four ships and 300 bidarkas, he attacked the newly constructed Indian fortification at the mouth of the Indian River. After a 7 day seige of cannon fire, the Tlingits slipped away into the night, and the Russians secured Sitka. The Tlingit village was burned to the ground, and Novoarchangelsk (hereafter called New Archangel) was built in its place. The Tlingits later returned to rebuild their village outside the fortified walls of the town. The Russians and the Tlingits never lived completely in harmony; the gates were locked at sundown and all natives were required to leave the fortified city. Minor uprisings occurred in 1854 and 1858.

New Archangel thrived throughout the early and mid-19th century as headquarters for the Russian American Company. By the 1840's, however, fur supplies of the Alaskan coast were beginning to diminish, and the Company experimented with the exploitation of other types of resources including fish, coal, ice, and lumber. None of these ventures were particularly successful. By the time the Crimean conflict erupted in Europe, Russia was ready to divest herself of what had become a costly and too distant colony. Fearful that Britain would take the colony from her, and conscious of her inability to defend it, she offered her American colony to the United States. The treaty which transferred Alaska to the new owner was signed in March, 1867. Formal transfer took place in New Archangel on October 18, 1867.

The new possession, renamed Alaska, was incorporated into the military division of the Pacific, Department of the Columbia, but no provision was made for setting up a territorial government. The United States Army established a post in Sitka and was the only government for the entire area. When the military rule ended in 1877, a civil town government was established, but the control of law and order was so difficult that the town leaders requested the assistance of the U.S. Navy. Their administration ended in 1884 when a stable civilian government was finally established. When Russia withdrew from Alaska, it appears that most of

her Russian born citizens returned to the mother country. Sitka, almost abandoned, was quickly filled with American entrepreneurs anxious to cash in on the often inflated riches of the far north. Sitka remained the seat of authority for Alaska until the gold rush to Juneau caused the removal of the government to that booming city in 1906. People began to bypass Sitka on their way to northern riches, and the town gradually settled into the fishing community known today. The population is 7803, of which 19% are native (U.S. Census, 1982:9); only 15 people in Sitka claimed Russian ancestry in the 1980 census (ibid. 19). The major employers in Sitka today are engaged in logging, fishing, tourism and government (Alaska Geographic 1978).

HISTORICAL SUMMARY OF THE BUILDINGS*

The Russian Bishop's House

One of the conditions of the charter authorizing the Russian American Company to be sole fur trader in the American colonies was a stipulation that the company provide support for the Russian Orthodox Church clergy. The priest Ivan Veniaminov came to Alaska in 1824 where he ministered to the Aleuts for ten years. In 1834, he was transferred to New Archangel where he continued serving Russian and Aleut employees and began the gradual wooing of the Tlingits to his faith. After his wife's death in 1840, he was made Bishop Innocent of Kamchatka, the Kuriles and Aleutian Islands.** He continued his work in New Archangel until 1850, when he was promoted to archbishop and moved to Siberia. Before his death in 1879, he had become metropolitan of Moscow, the highest office in the Russian Orthodox Church after the Tsar. He was a vigorous, dedicated man who seemed to have inspired admiration in all he met. He is honored for his promotion of European style education of native peoples in Alaska during his tenure there.

The Russian Bishop's House was completed by the Russian American Company in 1843, then headed by Governor Etolin, a Lutheran (figure 2). The two story log building was probably constructed by Finnish ship builders, and reflects their understanding of structures. The building is nine sazhens (63 feet) long and six sazhens (42 feet) wide. It originally had two "galleries" at the east and west ends of the building. These were frame additions which held stairways, latrines, and served as storage space. Their primary purpose was to form an air space between the outdoors and indoors at the entrance ways. The galleries ran the width of the structure and were two sazhen (14 feet) wide.

By 1887, the building had become seriously dilapidated. After the bishop left in 1850, the structure had become the residence of priests and clergy serving Sitka, and had also become the training ground for young native people. Some of them were orphans, and the house become known locally as the Russian Mission or the Russian Orphanage. Because the building

* Primary sources for this section are Mote (1981) and Cloyd (1982).

** Only monks can be made a bishop, and monks are celibate.

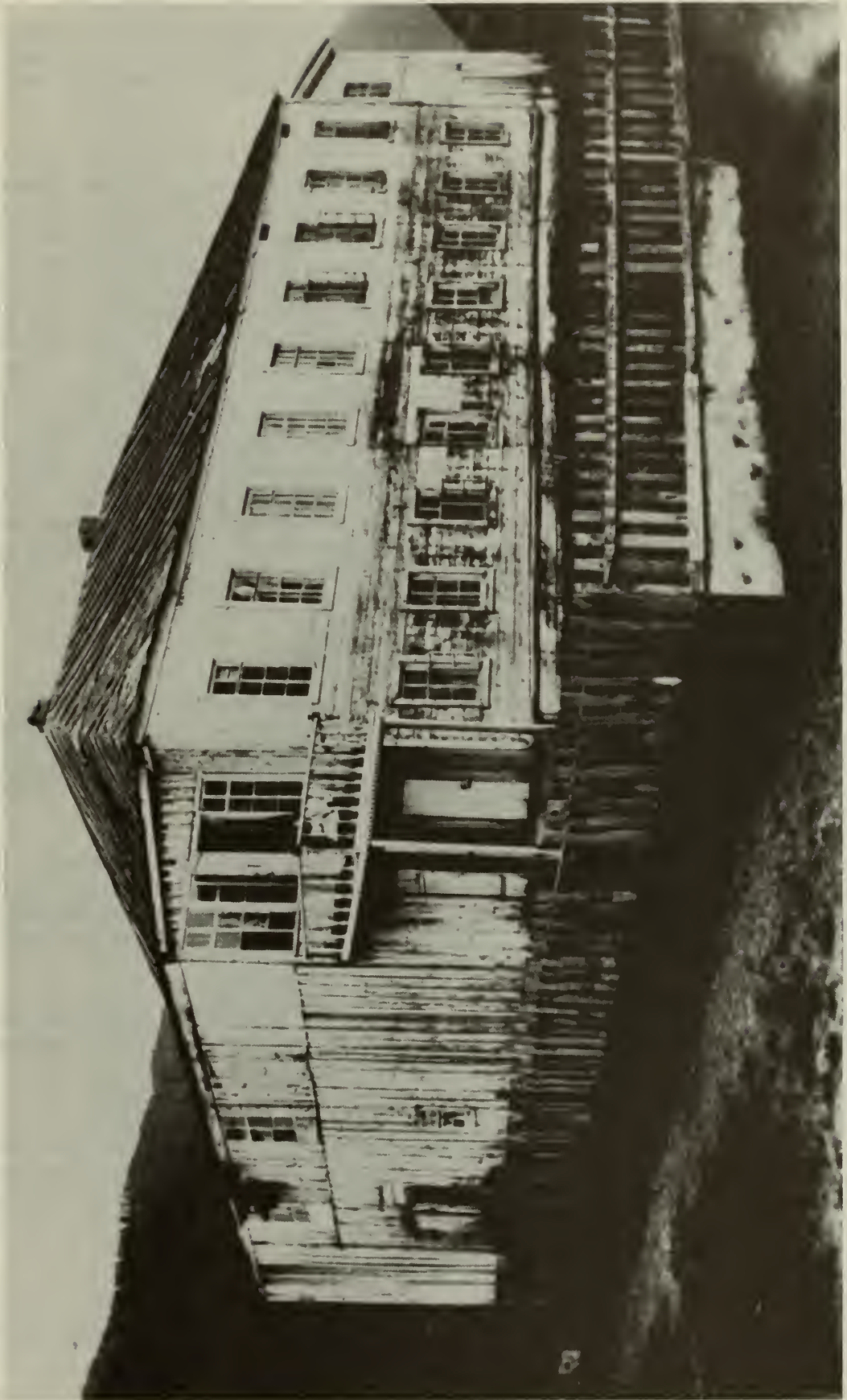


Figure 2: 1885 photograph of the Russian Bishop's House, looking northeast (Sitka National Historical Park).

needed renovation, a series of repairs were undertaken. The original galleries were removed to be replaced by new, six foot wide ones which contained staircases to the upper rooms of the clergy. At the same time, two privies were constructed in the back yard to replace the latrines in the original galleries.

After the Russian Revolution in 1917, the church was banned from the mother country. The head of the church moved to San Francisco, then later to New York City. Having been given only very limited financial support from the church after the Russian American Company withdrew in 1867, the Sitka parish was forced to become self sufficient during the Russian Revolution. The following lean times forced the church to rent out many of its buildings to pay for their own operation. In 1922-23, the Sitka Tribune rented a portion of the first floor of the Russian Bishop's House and the church's press. Sometime in the 1930's, the first floor was made into a series of apartments, at which time plumbing and presumably electricity were added. The church continued to own and lease out the building until 1973 when it was sold to the United States Government for inclusion in Sitka National Historical Park. Detailed architectural drawings were begun almost immediately. By 1978, the National Park Service had begun restoration of the building, including the reconstruction of the original 1843 galleries. The building was opened to the public in the spring, 1984 (figure 3).

Old School*

Twelve meters (40 feet) east of the main portion of the Russian Bishop's House stands a two story frame building known as the Old School (figure 3). It measures 18 feet 4 inches by 36 feet 8 inches. A letter from Monk Anatolii Kamenskii, dated July 23, 1897, requested funding to build the structure.

The crowded conditions and the many discomforts in the orphanage quarters, also the lack of convenient building for the kindergarten classes and for the girls who attend school, force me, Your Holiness, to request funds to erect the necessary school building, (Kamenskii, 1897).

The work was paid for by September 27, 1897, and the building was presumably used as a school for white children, as it is apparent that the Indian children attended school elsewhere.

Significant repairs were made to the building in 1908, as ". . . the floor had fallen through in the classrooms and the windows and doors do not serve their purpose anymore, nor does the fireplace" (Pustynskii 1908). It is probable that the north covered stairway was also added at this time.

*Primary sources on this section are Cloyd (1982) and the Alaska Russian Church Archives in the Library of Congress.

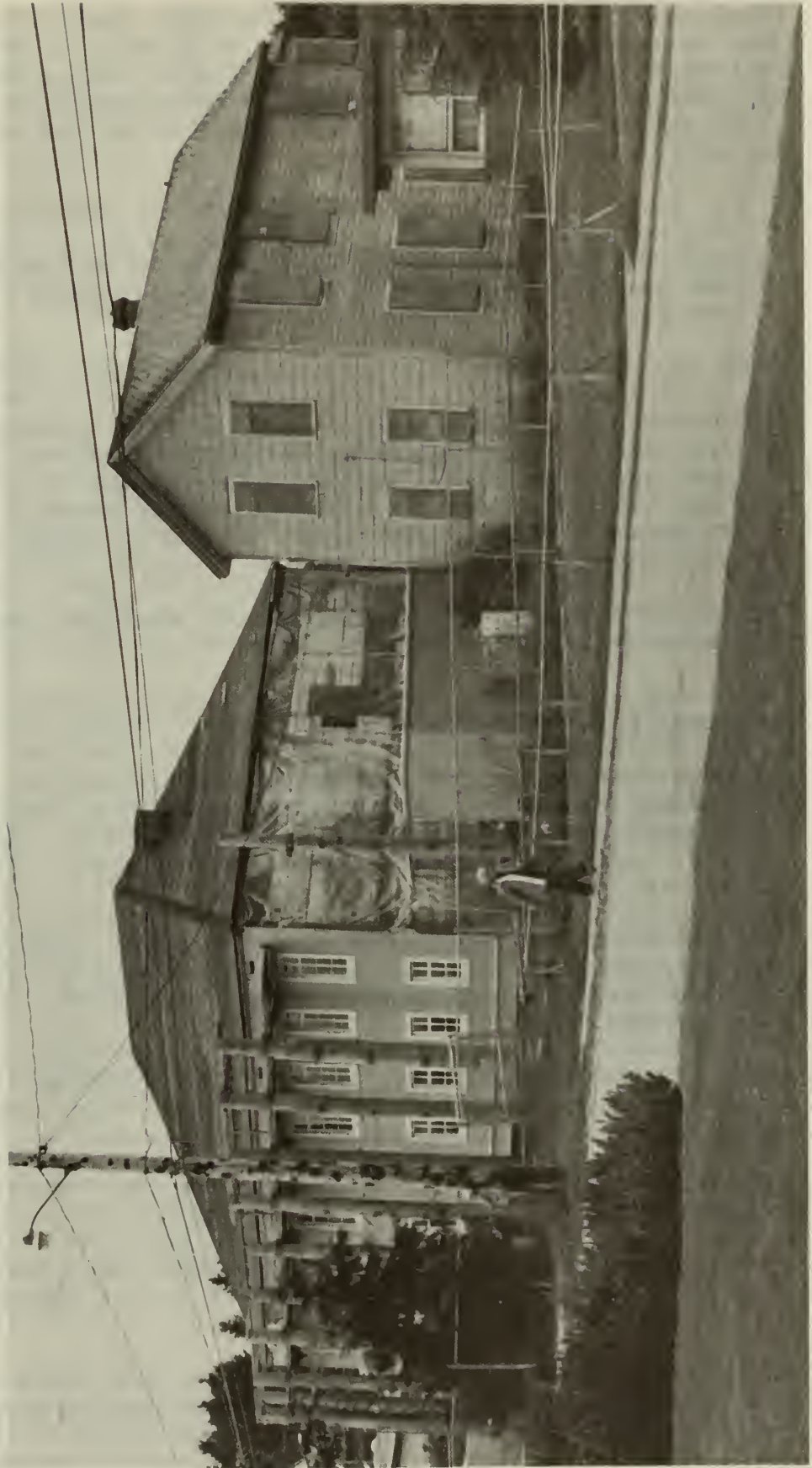


Figure 3: 1981 photograph of the Russian Bishop's House, undergoing restoration, and the Old School, looking northwest. Note that the galleries have been removed (Blee).

The building was leased to the Sitka Education Board in 1922. Until that time, children reaching the age of 16 in Sitka were forced to continue their high school education "outside." Upon renting the building, the town was able to provide a full high school education to any white child in the community. It was at this time that a door was added to the east side of the building:

It would not be so good for them to be entering the school building from the side of our interior yard. I would suggest that the interested parties would prefer to have an entrance to the other [east] side of the American public school (Dashkevich 1922).

Mamie Lou Hill Goddard, first high school principal at this school recalls:

This building served a dual purpose. The downstairs housed the library; the upstairs housed the 3rd and 4th grades and also served as typing and business classroom. . . The next year [1923] the library was moved. In the downstairs I had my classroom which included all Jr. Hi and Hi students of whom there were about ten (Goddard 1981).

The library mentioned in Mrs. Goddard's letter was the public library (The Sitka Tribune, September 14, 1923: 1).

The records fall silent after this time; Antoinette Shalkop found during her research on the structure that:

This building became a tenement--a slum--and was rented to various people who did not take care of it and made what changes were necessary in order to live in it. . . what repairs were made were done so with minimal means--often by the tenants themselves.

Isabel Miller, a Health Department employee, came to Sitka in 1963; she remembers a poor Indian woman living in the "old school building" with a large number of children. . . (Shalkop 1981: 488, 47).

The Old School was purchased with the Russian Bishop's House in 1973. Renovations began in the summer of 1983 after emergency salvage archeology was conducted under its southeast corner.

Priest's Residence

Data for this section is taken from Shalkop (1981) and Cloyd (1984). Since the Priest's Residence is not original to this site, in-depth history is not necessary here.

The building called the Priest's Residence in this report is also referred to as Building No. 105 from a number which appears above the door. It was originally built in 1887 to provide rental income for the church. It was located 110 feet north of the Bishop's House on the east side of

Monastery Street (figure 26). In the early twentieth century, the building was occupied by Priest Kashevarov, giving it the name of Priest's Residence. The lot occupied by the building was sold to the City of Sitka in 1936. It is uncertain whether it was moved at that time. Local residents recall it being moved to its current site in the late 1950's.

OTHER ARCHEOLOGICAL INVESTIGATIONS

Three archeologists had conducted investigations at the Russian Bishop's House before this testing program and two since (figure 1). All projects were spurred by the rehabilitation of the building, which began in 1978.

In 1975, Dr. Ann Shinkwin of the University of Alaska at Fairbanks conducted a series of excavations outside the east and west sides of the building. This work was aimed towards discovering remains of foundations and flooring original to the 1845 galleries. Also, in view of the dearth of archeological information about Russian sites in Alaska at that time, it was hoped that the material culture from this site would be of value in interpreting material from other, post-contact sites in the state. While artifacts from the entire range of time from 1843 to the present were recovered, the contexts were largely disturbed, no doubt owing to the construction of the 1887 galleries and utility lines added in the 1920's. Remnants of post-1887 boardwalks were also recorded (Shinkwin, 1977).

A second effort at artifact recovery was attempted by Zorro Bradley in 1976. Artifacts were salvaged from the insulation barriers in the ceilings of the first and second floors. All material was screened and recorded by room numbers. A variety of items dating to the Russian period were recovered and are now stored at the park. No report was issued on this material.

A third investigation was conducted by Dick Ping Hsu in 1978 along the north and south walls of the building. This work was oriented toward the recovery of information in a less disturbed context than that recorded by Shinkwin. A draft report on the non-ceramic artifacts has been prepared (Diters 1980). Briefly, few structural or feature remains were found; however, artifact information gathered during Hsu's and Diters's studies have contributed significantly to some of the findings in this report.

Two other efforts have occurred since these 1981 excavations. In 1982, Craig Davis conducted some brief testing in the proposed utility corridors between the Old School and the Russian Bishop's House (Davis, Shields and Staley 1982). Additional excavations were conducted by this author under the Old School in 1983. A full report of those excavations will be completed separately.

METHODOLOGY

RESEARCH DESIGN

A scope of work was prepared and submitted to the Alaska Regional Office of the National Park Service in June, 1981 (Blee, 1981). Proposed renovation of the Russian Bishop's House and the two remaining smaller buildings on the property (the Old School and the Priest's Residence), required site specific construction items which would have an impact on archeological resources. The proposed development included:

1. A basement under the east gallery of the Bishop's House for the housing of the mechanical system.
2. A foundation drain from the southwest corner of the house to the southwest corner of the site.
3. Utilities from Lincoln Street to the house.
4. Site grading north of the house to provide better site drainage.
5. Replacement of foundations under the Old School.
6. Utilities to the Old School.
7. Replacement of foundations at the Priest's Residence.
8. Underground utilities to the Priest's Residence.

All test units were placed in such a way as to evaluate the potential for significant archeological remains being in the areas to be disturbed. As the site is historic it was assumed that archeological remains were present; the investigations reported herein were designed to evaluate the potential for the disturbed areas to yield scientific information. If it was believed that the information to be destroyed could not be retrieved from some other, similar site, then design plans would be changed or salvage archeology undertaken to salvage the information.

Besides placing the test units in areas to be disturbed, units were also placed in areas where certain features were anticipated. Primarily, one unit was placed in the suspected location of the 1887 privy (N36W37.5). Another unit was placed in the center of the front yard to determine if any cultural material remained of gardens shown in an 1845 map of Sitka (figure 4).

FIELD METHODS

Twelve units were placed in the yards of the house and adjacent to the Old School (figure 1). Upon encountering a significant concentration of artifacts under the southeast corner of the Old School, two more units were excavated to determine the extent of the deposit.

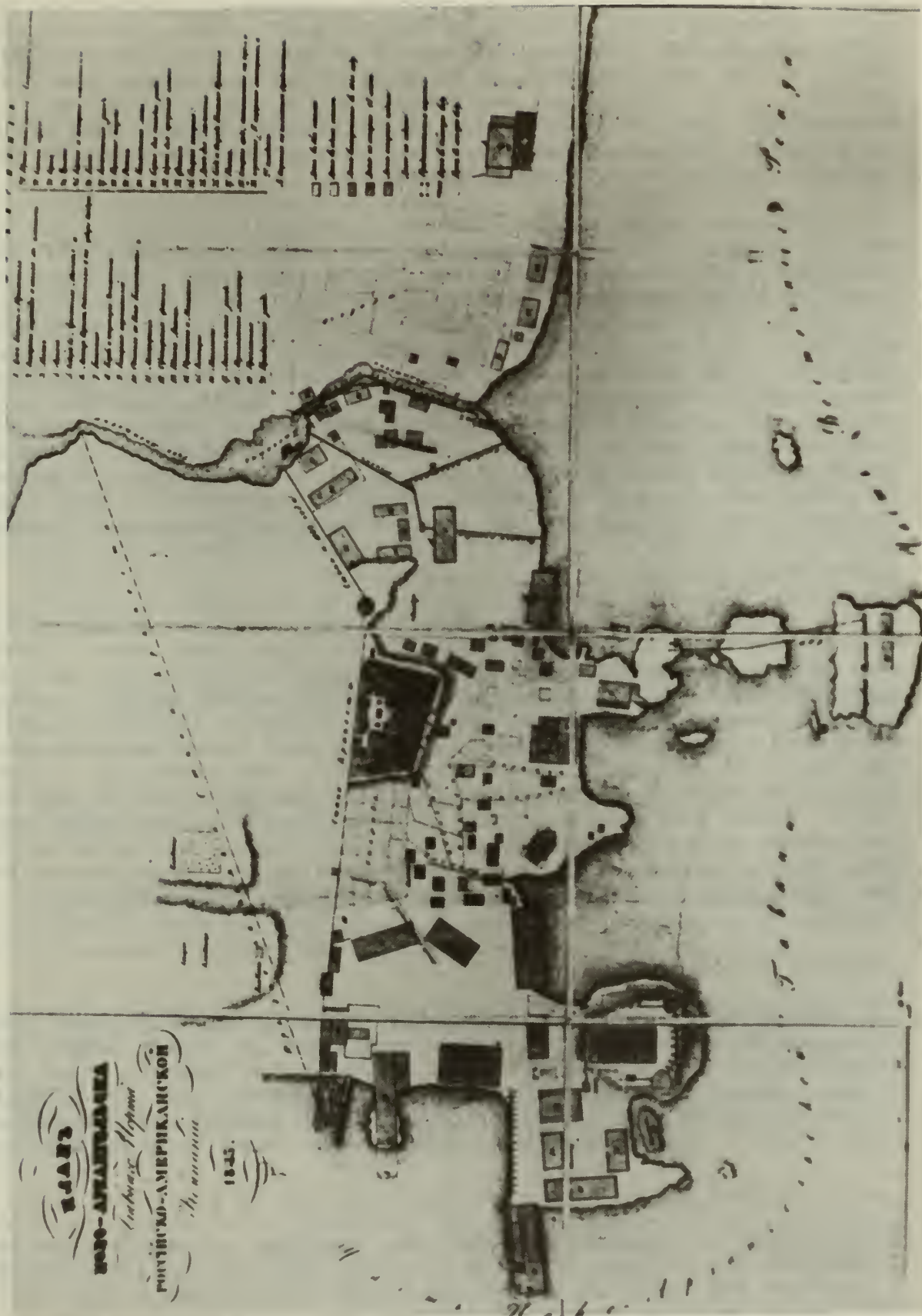


Figure 4: 1845 map of Sitka. The building farthest to the right is the Russian Bishop's House.

The site of the Russian Bishop's House was mapped and gridded into one meter squares with the use of a builder's transit. The point of origin, N0W0, was located 17 meters east and 9 meters south of the southeast corner of the main structure of the Russian Bishop's House (excluding galleries). This measurement was taken from the new foundation stone at that corner. This point and three others (N36W0, N36W40, and N0W15) were marked by a four foot long iron rebar surrounded by a one foot diameter, two foot deep column of concrete.

The units were named by the distance of the southeast corner from the point of origin. Each unit measured one meter on a side, with two exceptions: N8.5W1.5 is 50cm by 50cm, and N8W1 comprises the remaining three quarters of the one meter square from which N8.5W1.5 was taken. The units were excavated in arbitrary 10cm levels with three exceptions: N8.5W1.5, N8W0, and N15E1.5. These three units were excavated at the end of the field season when it was believed that 20cm levels would produce as much information and speed excavation. All material was screened through 1/4 inch mesh and all cultural materials, bone, shell and charcoal retained. All units were excavated to culturally sterile subsoils except N36W37.5 and N28W15. The former unit yielded the required information without complete excavation. The latter contained such loose gravels that it was impossible to continue excavation beyond 110 cm. deep. It was not anticipated disturbance would intrude below that point.

In the discussions that follow, more emphasis has been placed on the naturally occurring strata than the arbitrary 10 cm. thick levels. Levels were used for excavation since this was a testing program and could be excavated more quickly than the naturally occurring strata. During analysis, levels were combined with the assistance of statistical tests to correspond roughly with the strata. However, one should note that when speaking of an assemblage from a given stratum, that assemblage is really from one or more 10 cm levels and does not necessarily coincide with the strata. Since strata are the more meaningful units of discussion, they are labelled on the drawings. Levels are indicated by tick marks on the edge of the profile drawings. Levels are usually mentioned in the discussions only in reference to artifact assemblages (Appendix B).

LABORATORY METHODS

All artifacts were cleaned and labelled by provenience. They were then catalogued according to the system established by Comer (1980) and information on each artifact was coded onto computer sheets for input into a data resource system. Mending was attempted only on artifacts recovered from Feature 12 (page 91). All other material was regarded as sheet trash.* Where possible, artifacts were dated and classified by

*Sheet trash is commonly regarded by historical archeologists as the Fragmented bits of material culture that find their way into yards around a structure and which are distributed rather thinly across a site. It is not material which was intentionally thrown away.

function in order to establish use and age of activity areas. Densities of non-structural artifacts and window glass were plotted and compared to previous excavations (figure 1) to indicate clustering of certain types of activities and assist in the evaluation of deposit significance.

Artifacts were categorized by function according to a system described in Blee (1983a). Briefly, this system is a cross between that devised by South (1977) and the one used by Sprague (1981). In South's system functional groups were devised which appeared in sufficient frequency to tell the investigator something about what happened in a given area on 18th and early 19th century British-American sites. It is quite obvious that the groups statistically useful on South's sites were not so useful on the 19th and 20th century Alaskan frontier sites. Sprague's system is more functionally devised. It looks at the total universe of material culture used by Euro-Americans in the 19th and 20th centuries, and classified materials by how they were used, not particularly how they appear in the ground. This investigator has tried to combine the two methods, recognizing that what the archeologist has to analyze is what makes it into the ground, but also that those categories must be functionally related to tell us something about what activities prompted their disposal. In order to do this, Blee has taken South's classes of artifacts and recombined them into the following five functional groups:

1. Domestic artifacts result from the storage, preparation, serving and consumption of food, and other ancillary activities that would take place in a household situation, such as housekeeping.
2. The Structural and Hardware group includes all items that were part of the building, or were used in the construction, operation, or upkeep of the structures. It also includes hardware which would have been used on the building, or on items being used in the building.
3. Personal artifacts are those which most likely were privately owned and carried around on one's person.
4. The Activities group includes all items which might have been used in special activities at the site. Religious items, school supplies, printing equipment, medical supplies, and bulk storage of supplies are all examples of the types of artifacts that could be considered Activities related.
5. The final group is not functionally based, but includes all those items whose purpose could not be determined. The Unknowns include: the whatsits (items the cataloguer could not identify, but which someone else may be able to); the unknowables (items no one could identify because they are so fragmentary or decomposed); and artifacts which have been changed by some behavior to make their original function indeterminable.

These five artifact groups were each broken down into artifact classes, which are shown in the inventory found in Appendix B and in many of the tables which are discussed in the following section on the excavation results.

Because most of the excavation units are widely scattered, and relatively small (one meter square), it was not anticipated that many fragmented artifacts could be reconstructed. Furthermore, most of the deposits consist of sheet trash, which rarely contains enough of a broken item to warrant extensive mending. For that reason, only sherd counts were analyzed. The reader should recognize, therefore, that if a given assemblage is 50% window glass and only 0.5% educational items, it does not necessarily mean that 50% of the activities taking place at that location were related to the breaking of windows and only 0.5% to the acquiring of an education. The analyst did make note of any clustering of artifact sherds that appeared to originate with one item; this did not occur in any of the sheet trash deposits, so it was not anticipated that the breaking of one bottle, for instance, substantially skewed any of the frequencies given in this report. The major exception, of course, is Feature 12. While sherd counts were analyzed in the discussions of horizontal distributions to demonstrate the fact that the feature was a trash pit, minimum vessel counts were a more meaningful unit of study for this feature. At no time does the investigator compare minimum vessel counts to sherd counts.

During the discussions which follow, mention is frequently made of a statistical test called the chi square test. Essentially, what this statistic does is measure whether two or more samples (or two groups of artifacts) were drawn from the same population (or in this case, were deposited under the same behavioral, temporal, and physical conditions). It tells the archeologist whether two groups of artifacts are similar enough in composition to be regarded as originating from the same activity at the same period in time. The test used was the Chi Square test for k independent variables (Siegal 1956: 104-111), which permits more than two groups of two variables each to be tested. The formula is as follows:

$$\chi^2 = \sum_{i=1}^r \sum_{j=2}^k \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

Each test was conducted on a hand held calculator. The level of significance was set at an arbitrary 0.05, consistent with what many archeologists believe is an acceptable level. This means that, in essence, there is a 95% probability that the two (or three or more) samples were drawn from the same population of artifacts.

The chi square test was used rather extensively in the artifact analysis to demonstrate how the arbitrarily excavated 10 cm levels correlated with the naturally occurring stratigraphy in the deposit. This was done on the assumption that artifacts deposited in the same manner at the same period in time would appear in the same relative frequencies.

The chi square test in this report is being used as a descriptive tool. Often archeological assemblages appear to be similar in relative frequency distribution of certain artifact types. For instance, one level in an excavation unit may contain 50 fragments of beer bottle glass, 10 pieces

of ceramics, 5 nails and 35 sherds of window glass, and the next level below contains 60 bottle glass sherds, 15 ceramics, 7 nails and 40 sherds of window glass. They appear to have similar assemblages. In terms of relative frequency, the first level is 50% bottle glass, 10% ceramics, 5% nails and 35% window glass. The second contains 49% bottle glass, 12% ceramics, 6% nails and 33% window glass. Although there appears to be similarity between the two groups of artifacts, it is difficult to say whether there is essentially no difference between the groups or not. The third level may have 72 (45%) bottle glass sherds, 21 (13%) ceramics, 6 (4%) nails and 61 (38%) window glass fragments. It now becomes that much more difficult to determine whether the three samples were drawn from the same overall population of artifacts being deposited in the ground at a given time by a certain type of behavior or not. The chi square statistic tests whether or not the three groups of artifacts display sufficient variation to be regarded as coming from different populations (that is, different periods of time and/or from different types of activities). If they do not, then they may be regarded as being so similar that there is essentially no significant difference between the three. In this particular example, chi square equalled 1.866. There are 6 degrees of freedom (there were four categories and three levels). The degree of freedom is determined by subtracting one from the total categories and one from the total levels and multiplying the two sums. A table of chi square values (Siegal 1956: 249) shows that at 6 degrees of freedom and 0.05 level of significance, chi square should be less than or equal to 12.59 if we are to believe the three samples were drawn from the same population. Since this is true for these three levels, we can state that there is at least a 95% probability that the three samples were drawn from the same population; that is, that they were deposited at the same time by the same agency.

In order to illustrate the use of this statistic more thoroughly, the first two times the statistic is used in the following analysis, the entire process will be outlined for the reader. After that, only the value of χ^2 and the degrees of freedom (df) will be given. In all cases, the null hypothesis will be that there is no significant differences between the artifact assemblages being tested. The number of categories of artifacts may vary, as well as the number of levels or proveniences. Should the test be used for other purposes than to correlate levels within a discreet unit, the test will be shown in more detail.

At no time does the author intend that the test be used for other than descriptive means. It is not meant to be used as a predictor of frequencies since the samples were not drawn randomly. In some cases, differences between assemblages could occur for reasons that are unsuspected even though they were deposited in the same time and manner. Also, similarities could exist that do not appear in the numbers because of the way the data has been categorized. The reader should recognize, as does the author, that these circumstances do exist, but that the statistic can be a useful tool in describing observed phenomena and in assisting in the interpretation of what may have caused those phenomena.

One of the conditions for the use of the test is that no more than 20% of the expected frequencies in the sample equal less than 5. To the

archeologist, this requires that the categories selected for statistical testing be comprised of large enough groups of artifacts to meet this condition.

Early in the statistical analysis of the artifacts, it was found that the Personal and Activities groups of artifacts were often of such low frequency that the chi square test could not be used. Testing only the Domestic and Structural artifacts did not yield enough information about the character of the deposit. However, it was noticed that five classes of artifacts were usually of very high frequency in a given deposit and that each class contained artifacts closely enough related to tell the analyst something about what had been occurring at the site. The five significant statistical classes are: Food Storage Containers, Beverage Containers, Food Serving, Window Glass, and Nails. A sixth statistical class was created out of the remaining artifacts. In the following discussions, these six classes are referred to as the statistical classes.

Four methods were used to date the deposits. The terminous post quem method states that no deposit can date earlier than the earliest possible manufacture date of the youngest artifact in the deposit. This is not an absolute, however. Certain types of deposits, such as a slowly accumulating humus, could contain artifacts which were made long after the layer began to form. The deposit type must be considered when using this method.

Historic records were also used to compare the functional composition of the artifacts with the events known to occur at a site. Historic documents, photographs, newspaper articles and eye witness accounts were all extremely helpful.

A mean dating formula for ceramics and bottle glass was used to arrive at an estimated mean date of deposit when possible and when other techniques could not be used. The formula was devised by Stanley South (1972) and, when correctly used, can provide a mean date for when an area was used, but not how long that use continued either before or after that date. In essence, what the formula does is sum the median dates of manufacture for each artifact type being dated, taking into account the frequency of each type, and dividing by the number of specimens being used to date the deposit. Repeated testing both by the originator of the formula and many historical archeologists since has shown this to be a fairly accurate method of dating a site. However, it should not be used exclusively. It has been found that some artifact types are more sensitive indicators for mean dating than others; in the later nineteenth century, bottles seem more useful for this type of dating than ceramics (Adams and Gaw 1977). The shorter period of time an item was made, and the shorter the life expectancy of the artifact, the more accurate the resulting date.

South's mean dating formula, originally devised for ceramics, is as follows:

$$Y = \frac{\sum_{i=1}^n X_i \cdot f_i}{\sum_{i=1}^n f_i}$$

where X_i is the median date for the manufacture of an artifact, f_i is the frequency of each type, and n is the number of types in the sample (South 1972: 83).

Finally, seriation models were constructed to show how certain types of artifacts changed in frequency through time. With this method, relative artifact frequencies of types known to change through time were measured in deposits where dates were known and compared to those in deposits where dates were unknown. Examples of artifacts which change through time are bottle glass colors, ceramic types, and window glass thickness.

OBSERVATIONS

The following descriptions of the individual excavation units and results are often fairly technical and detailed. Should the reader wish to learn the results of the excavations without having to read the technical descriptions, it is recommended that he or she skip to the Summary beginning on page 126. All significant conclusions are reiterated there.

RUSSIAN BISHOP'S HOUSE FRONT YARD

Three units were excavated in the front yard of the Russian Bishop's House, primarily to assess the significance of archeological deposits in the yard preparatory to installation of utility lines.

The first unit excavated, N4W12, was placed in the vicinity* of a proposed utility corridor running from Lincoln Street north to a point between the Russian Bishop's House and the Old School (figure 1). The unit was excavated to a depth of 130 cm below the highest point on the ground. Artifacts were found as deep as 1 meter below the surface.

Ten strata were uncovered (figure 5). Strata A through D are sandy gravels of varying aggregate size. A mixture of 19th and 20th century artifacts in these upper strata indicate that they were deposited very recently and probably originated in some other location. Stratum E is a densely packed layer of wood chips which may have been part of the sawdust insulating material originally placed under the floors of the Russian Bishop's House. Stratum E appears in Levels 4 through 7--all four levels contained some plastic and styrofoam indicating a very recent deposition. The construction supervisor noted that during the restoration activities before 1981, an earthen ramp was created for earth moving equipment (Conrad 1984).

It appears that the top of Stratum F, a black sandy gravel, is the original surface previous to renovation activities at the Bishop's House. This surface varies from 53 to 62 cm below the datum point at the northeast corner of the unit. The layer is 8 to 20 cm thick. Level 7 has little or no intrusion from Stratum E. Artifacts below this original ground surface are infrequent and undiagnostic. Recent items such as a fragment of styrofoam cup and a cellophane wrapper are mixed with potentially older artifacts such as aqua colored glass. There are only 59 artifacts in Level 7, and only 24 in all levels below that. The lighter colored sandy gravel below Stratum F is very nearly culturally sterile.

A chi square test was conducted to see if there was a significant change in the three artifact assemblages (figure 6) through time. If there was

*The exact location of utility corridors was not known until shortly before their construction was begun in early 1982. Davis, Shields and Staley (1982) tested in the corridor.

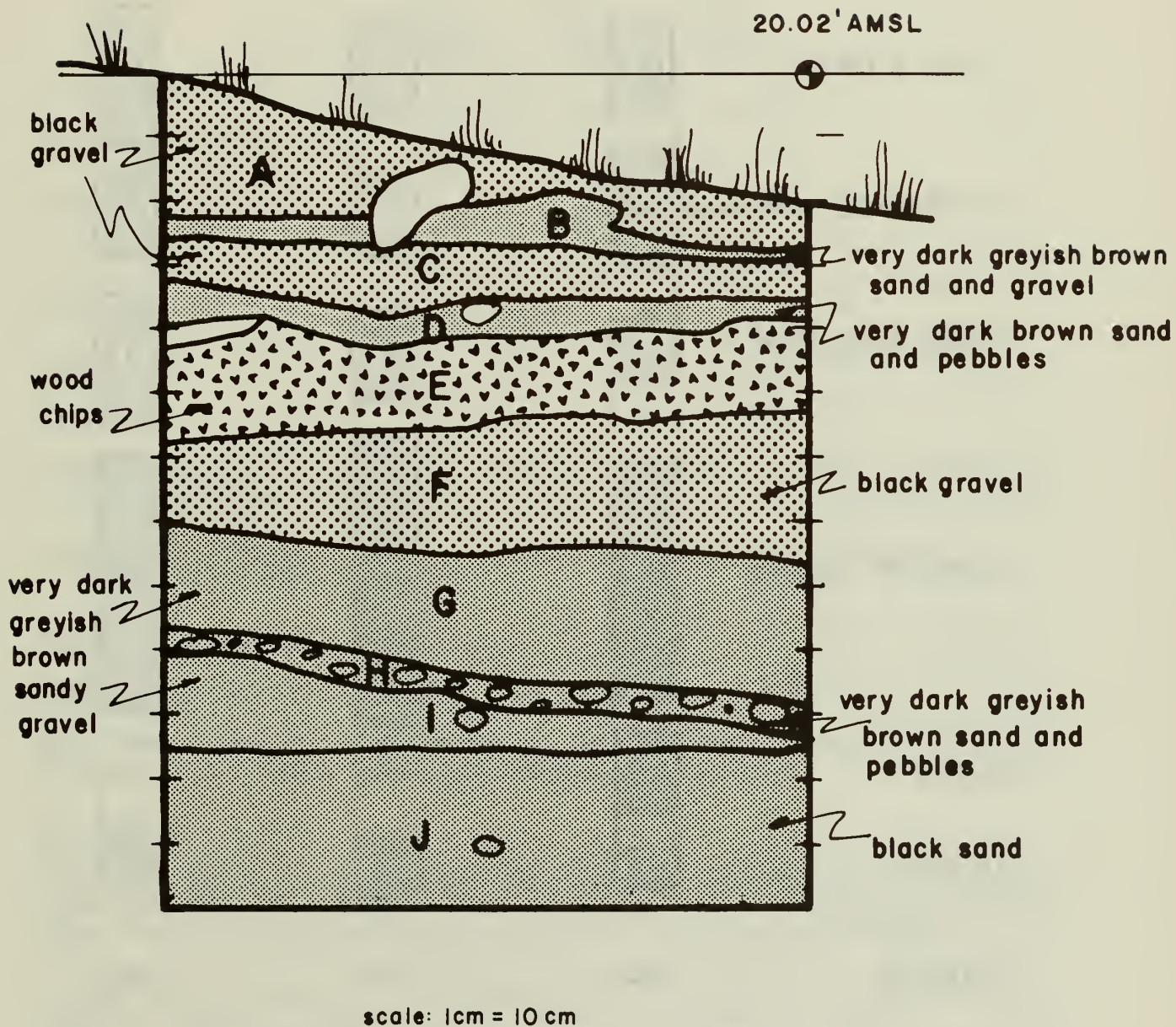


Figure 5: East profile of N4W12

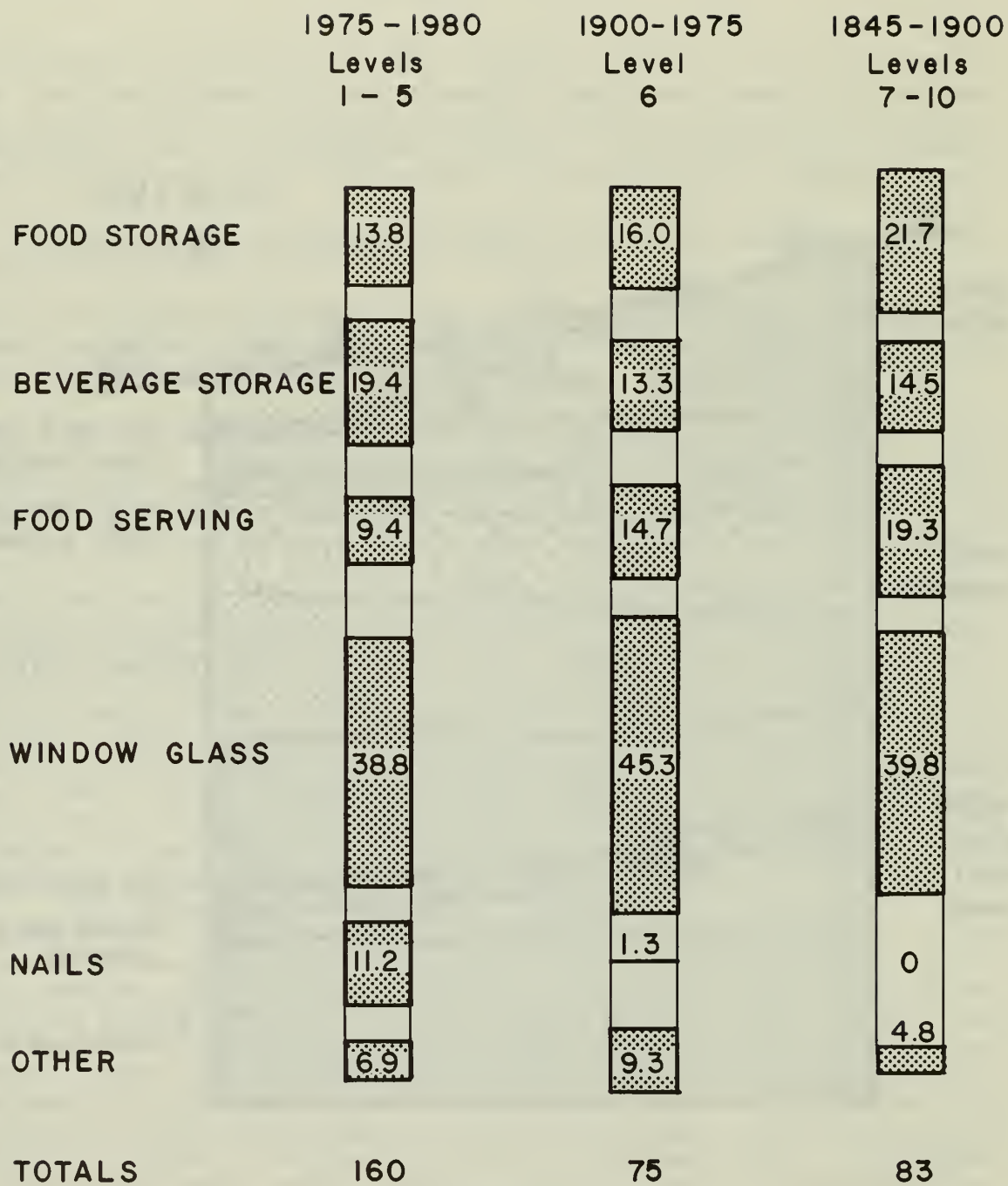


Figure 6 : Relative frequency distribution of statistical classes of unit N4W12.

any variation in relative frequencies through time, pinpointing that variation would enable us to understand processes occurring at the site and match them with known, documented occurrences. Six categories of artifacts were tested in three time periods, as shown below. The observed frequency is shown in the lower right corner of each cell and the expected frequency in the upper left corner of the cell.

	1975- 1980	1900- 1975	1845- 1900	
Food Storage	26.2 22	11.8 12	13.6 18	52
Beverage Storage	26.7 31	12.5 10	13.8 12	53
Food Serving	21.1 15	9.9 11	11.0 16	52
Window Glass	64.9 62	30.4 34	33.7 33	129
Nails	10.1 19	4.7 1	5.2 0	20
Other	11.1 11	5.2 7	5.7 4	22
Totals	160	75	83	318

Null Hypothesis: There is no significant variation in artifact assemblages through time.

Alternate Hypothesis: There is a significant variation in artifact assemblages through time.

Level of Significance = 0.05

Degrees of Freedom = $(k-1)(r-1) = (6-1)(3-1) = 5 \times 2 = 10$

When the probability of wrongly rejecting the null hypothesis is 0.05 at 10 degrees of freedom, chi square should equal 18.31.

Chi square = 22.642

Since chi square is greater than the value at 0.05 probability, we must reject the null hypothesis in favor of the alternate hypothesis. This means that there is a significant variation in the three assemblages.

Comparing the observed frequencies with the expected frequencies, it appears that the variation may occur in the Nails category. If we eliminate this category from the calculation and conduct a new test of the remaining five categories, we can confirm whether or not the nails were causing the variation to occur.

	1975- 1981	1900- 1975	1845- 1900	
Food Storage	24.6 22	12.9 12	14.4 18	52
Beverage Storage	25.1 31	13.1 10	14.8 12	53
Food Serving	19.9 15	10.4 11	11.7 16	42
Window Glass	61.0 62	32.1 34	35.9 33	129
Other	10.4 11	5.5 7	6.1 4	22
	141	74	83	298

Null Hypothesis: There is no significant difference between the assemblages (without nails) through time.

Alternate Hypothesis: The assemblages without the nails vary significantly through time.

Degrees of Freedom = $(k-1)(r-1) = (5-1)(3-1) = 8$

When the probability of wrongly rejecting the null hypothesis is 0.05 (level of significance), and the degrees of freedom equal 8, then chi square must be less than or equal to 15.51 (Siegal 1956: 249).

Chi square = 8.281

Therefore, we do not reject the null hypothesis. The assemblages are essentially the same. We can therefore deduce that only the nails vary in relative frequency to the other artifact classes through time. A glance at figure 6 indicates that nails are most frequent in the NPS levels. This possibly reflects the fact that most NPS activity on the site has related to the renovation of the Russian Bishop's House, requiring the extensive use of nails.

Few artifacts in this unit are diagnostic. Most of the ceramics, especially two polychrome painted creamware sherds and the transfer printed wares, as well as the aqua colored and "black" glass, are characteristic of mid to late 19th century deposits.* However, the same levels contain styrofoam, plastic and other items of recent manufacture, indicating recent disturbance or transfer from some other location.

One item is worth special comment: a sherd of blue painted Chinese export porcelain, probably from a plate, was found in Level 8, below the post-NPS backfill. The sherd was extensively water worn, indicating

*The dates of temporally diagnostic artifacts are listed in Appendix C.

deposition on a beach sometime after the early 19th century when these wares were most popular. It could indicate that Stratum G is a water laid beach sand, original to the site when the Bishop's House was first built. The top of Stratum G varies from 70 to 82 cm below the present ground surface.

N4W22

The second unit excavated was placed near the center of the front yard of the Russian Bishop's House (figure 1). This test was primarily undertaken to determine whether there was any physical remains of the formal garden shown in the 1845 map of Sitka. The map shows the garden divided into three sections presumably 4 sazhen or 28 feet on a side, and crossed diagonally (figure 4). Unit N4W22 was placed in the estimated location of the center of the center section.

Four basic strata were uncovered in six levels (figure 7). Stratum A consists of a series of strong brown to dark greyish brown lenses of loam, gravel, sand and other miscellaneous fill. At the south end of the unit it is only 10-12 cm deep; at the north end it intrudes to 43 cm below the surface. This layer appears to be fairly recent fill placed on the site, either during NPS construction or shortly before in order to level the ground. Much of the fill may merely be soil original to this area which was disturbed when the large poles were placed around the Bishop's House to hold it off its original foundations. Unfortunately, this disturbance mixed recent artifacts as low as Level 5, contaminating the 19th century strata below it.

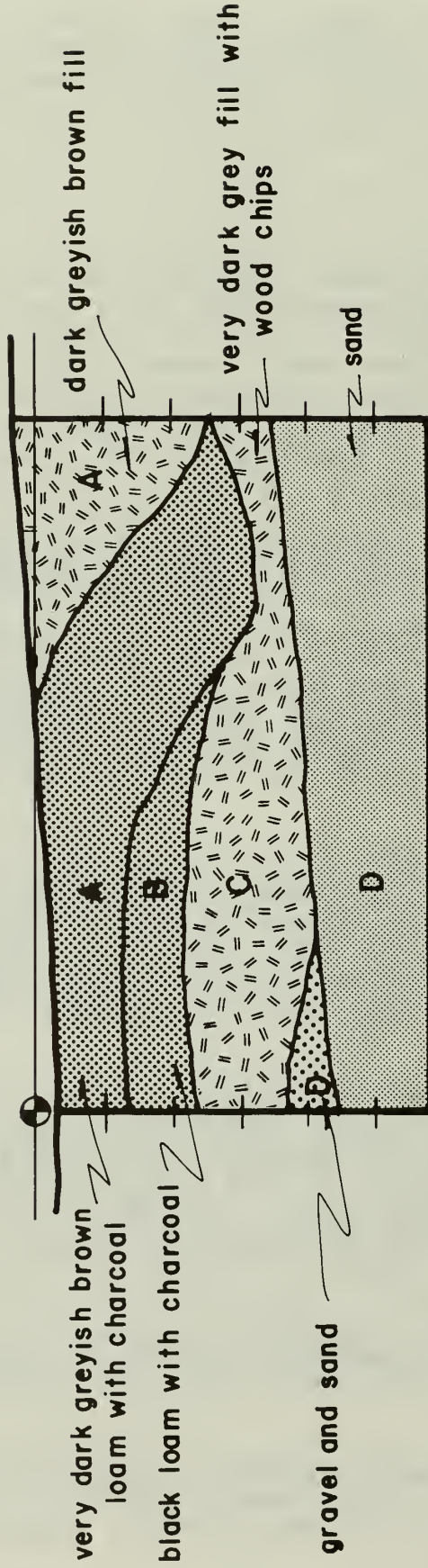
Stratum B is a black to very dark grey loam containing charcoal. It is an even, fairly compact soil with few rocks or pebbles, and appears to be a naturally accumulated soil. It appears only on the south half of the unit, from about 8 cm to 30 cm below the surface. Its surface was probably the soil surface for most of the 20th century. Level 2, which contains most of the stratum, contained a few artifacts of 19th century manufacture, but most post-date 1900.

Stratum C is perhaps the zone of most interest. It is a disturbed dark grey sandy loam containing some wood chips and an apparently natural mix of small pebbles. In the photographic profile (figure 8) this level appears to be a fill. However, it is most likely that this layer is the remains of the garden in the front yard. The disturbed fill-like nature of the layer was likely caused by the annual cultivation of the soil. This eliminated the lenses and pockets of other soil types commonly characteristic of fill.

Due to the fact that Level 5 contained portions of Stratum A at the northwest corner of the unit, only Level 6 can confidently be associated with Stratum C.

However, Level 6 contains only 4 artifacts: 2 sherds of window glass, and 2 indistinguishable nails. Since these artifacts are undiagnostic in such small counts, little definite artifactual data is available to support

E1.18.61 AMSL



scale: 1 cm = 10 cm

Figure 7: West profile of unit N4W22

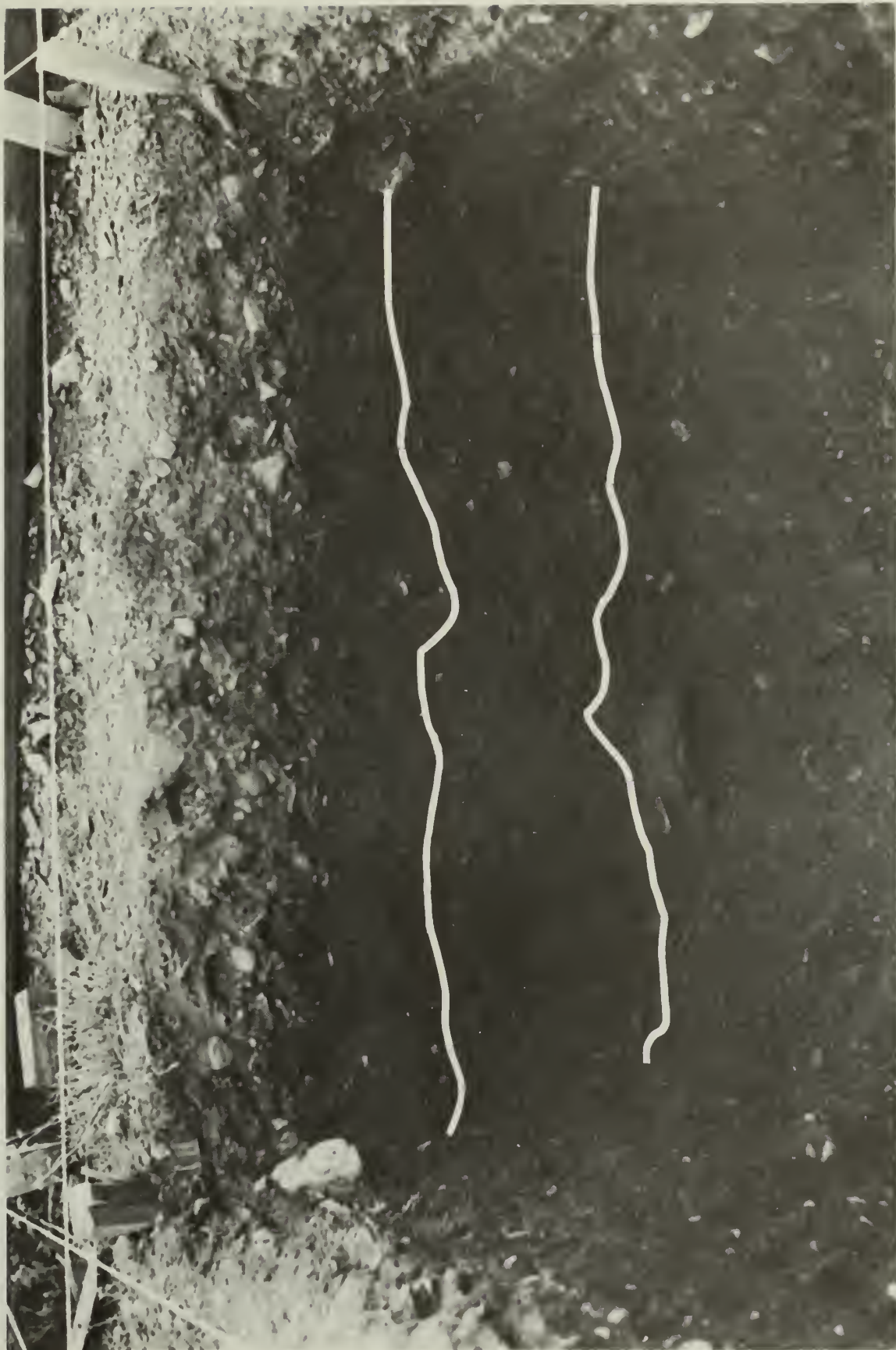


Figure 8: South profile of unit N4W22. Stratum C is indicated with heavy lines (Blee).

the hypothesis that Stratum C is the remnants of the garden. All soil characteristics point to this hypothesis, however.

Stratum D contained no artifacts.

It should be noted that the 19th century artifacts found in Levels 4 and 5 (with the exception of the Stratum A intrusion on the northwest corner, these levels encapsulate most of Stratum C) could very well date to the mid 19th century when the garden was in use. However, these artifacts are largely undatable to more specific time ranges due to their low density and highly fragmentary nature. It should be noted that a garden could be expected to have extremely low frequencies of artifacts in comparison to the immediate vicinity of buildings.

In order to correlate artifact class frequencies with activities occurring in the vicinity of Unit N4W22, comparative frequency analysis of the six levels was conducted. The extremely low frequency in Level 6 suggested combination with Level 5. The addition of the 4 Level 6 artifacts does not significantly affect the frequencies of artifact classes in Level 5. Level 1, likewise, has a very low frequency and can be safely combined with Level 2 for comparative analysis. A chi square test of k independent variables was conducted on Levels 3 and 4 combined with 5, using the six statistical classes of artifacts. As in all tests using chi square, the null hypothesis is that there is no significant differences in the assemblages being tested. With 5 degrees of freedom, and a probability of 0.05, chi square equals 11.829, indicating that there is a slight, but significant difference between the two assemblages. The difference appears in the frequency of Beverage Containers. Level 3 has 40 fragments (22.3%) compared to the 10 fragments in Level 4 (11.1%), suggesting an increased incidence of beverage container deposition in Level 3 from that observed in Level 4. All other classes are not significantly different in the two levels ($\chi^2 = 6.493$, with $df = 4$).

Stratigraphically, the difference between Levels 3 and 4 is Stratum B. This layer is present in Level 3 and absent in 4. It is reasonable, therefore, to suggest that the increased frequency of Beverage artifacts above level 4 is attributable to Stratum B. (Note that Stratum A intrudes through both levels), presumably introducing equal bias to each level.)

Level 3 has, by far, the greatest density of artifacts, and the greatest variety of artifact types, with more than twice the number of artifacts than in any other level. 58.1% of the artifacts are Domestic; 40.2% are Structural. These frequencies are very similar to those observed in Shinkwin's excavations on the east side of the Bishop's House (58.3% Domestic; 39.4% Structural) and to the Pre-NPS layers in the Front Yard of the Old School (57.8% Domestic and 39.6% Structural). Most artifacts are typical of the mid 19th century (see Appendix B), with the presence of creamwares and pearlwares, as well as whitewares. The absence of Domestic artifacts typical of the early 20th century, such as Fiesta ware, chromolithograph and decalomania decorated porcelains, and the heavy pressed glass characteristic of the Great Depression era suggests that Stratum B was largely deposited in the 19th century. Twentieth century artifacts in Levels 3 and 4 such as plastic, bright green bottle glass, and

electrical wire may be attributable to the intrusion of the Stratum A NPS disturbance.

Level 5 is characterized by a total absence of Food Storage artifacts, a low (17.6%) frequency of Domestic artifacts, and a fairly high (55.6%) frequency of nails. Rather than being an odd assortment of badly corroded nails, 27 of the 33 found in Level 5 are of three, consistent types: 16 are uncorroded 4d common nails; 6 are slightly rusted 6d nails; and the remaining 5 are double-headed 8d nails. All 27 are bent wire nails, suggesting disposal after use. These nails are the only 20th century artifacts in the entire level. Since Stratum A dips to 43 cm below the surface, 3 cm into Level 5, it is probable that the nails were deposited during the Bishop's House renovation activities. The consistency of type and size implies specific, one time use. Perhaps some scaffolding was in use in this area during early NPS renovation activities.

Deletion of these 27 nails from Level 5 (as being intrusive) yields a 28.9% to 71.1% ratio of Domestic to Structural artifacts, which resembles very closely the distribution of Levels 1 and 2 (28.6%:68.6%). The author is fairly confident that this post NPS assemblage (Levels 1 and 2) is due to the construction activity on the site. A similar distribution in Stratum C may indicate that most of the artifacts in that level were generated when the Bishop's House was constructed. Note in the profile (figure 7) that Level 5 includes that lower portion of Stratum C and the upper portion of Stratum D. This is the original beach sand, and probably predates the Russian Bishop's House.

Only one artifact in the unit was of any particular interest. In Level 3, probably from Stratum B, a dark brown English gunflint (figure 9) was recovered. Its presence reinforces the 19th century date attached to Stratum B.

N8W40

The third unit excavated in the front yard of the Russian Bishop's house is N8W40, at the west end of the yard (figure 1). Its northeast corner is approximately 3.4 meters west and 0.1 meters south of the southwest corner of the Bishop's House. This unit was placed in the vicinity of a proposed drain line for the foundation of the house, which was to replace an existing curtain drain installed during initial renovation of the house in ca. 1978. After inspecting "As Constructed" drawings, this investigator believed N8W40 would miss the curtain drain and test soils to the west. It was also placed far enough north, it was hoped, to include a portion of the south wall of the original west gallery.

Unfortunately, neither the goal of avoiding the curtain drain or including the gallery wall was realized. The unit was apparently too far south. Furthermore, the east edge of the trench for the curtain drain was located at approximately W40.6; the entire east half of the unit was disturbed by the recent trench excavation. Visqueen, cigarette butts, bright green glass, and light bulb glass were found in the lowest levels of the unit.



Figure 9: Photograph of front yard artifacts: forged nail, wood pegs, button, gunflint.

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	Total
Food Storage	-	5	13	12	-	-	30
Beverage containers	2	7	40	10	4	-	60
Food Serving	1	5	43	15	6	-	70
Food Remains	-	-	-	-	1	-	1
Pharmaceutical	-	-	8	-	-	-	8
Total Domestic Artifacts	3	17	104	37	11	-	172
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STRUCTURAL ARTIFACTS							
Window Glass	7	34	58	42	19	2	162
Nails	2	4	12	4	33	2	57
Utilities	-	1	-	1	-	-	2
Hardware	-	-	2	-	-	-	2
Total Structural	9	39	72	47	52	4	319
<hr/>							
PERSONAL ARTIFACTS							
Arms	-	-	1	-	-	-	1
Clothing	-	1	-	-	-	-	1
Other Personal	-	-	1	-	-	-	1
Total Personal Artifacts	-	1	2	-	-	-	3
<hr/>							
ACTIVITIES ARTIFACTS							
Metal Working	-	1	1	6	-	-	8
Total Activites	-	1	1	6	-	-	8
<hr/>							
TOTAL CLASSIFIABLE ARTIFACTS	12	58	179	90	63	4	406
<hr/>							
UNCLASSIFIABLE ARTIFACTS	5	-	24	4	3	-	36

Figure 10: Artifact class distribution, N4W22

A profile of the unit is seen in figure 11. Five strata were observed in the undisturbed portion of the unit. Stratum A is a sandy mixed loam fill which can be attributed to the NPS period. While a few of the artifacts in this stratum can be attributed to the 19th century, most are very recent in manufacture.

Stratum B is a sandy silt covering a dense clay loam. This layer is attributable to the first NPS activities on the site, as such soils are generally alluvial in origin, and probably occurred when foot traffic became common along the west side of the house.

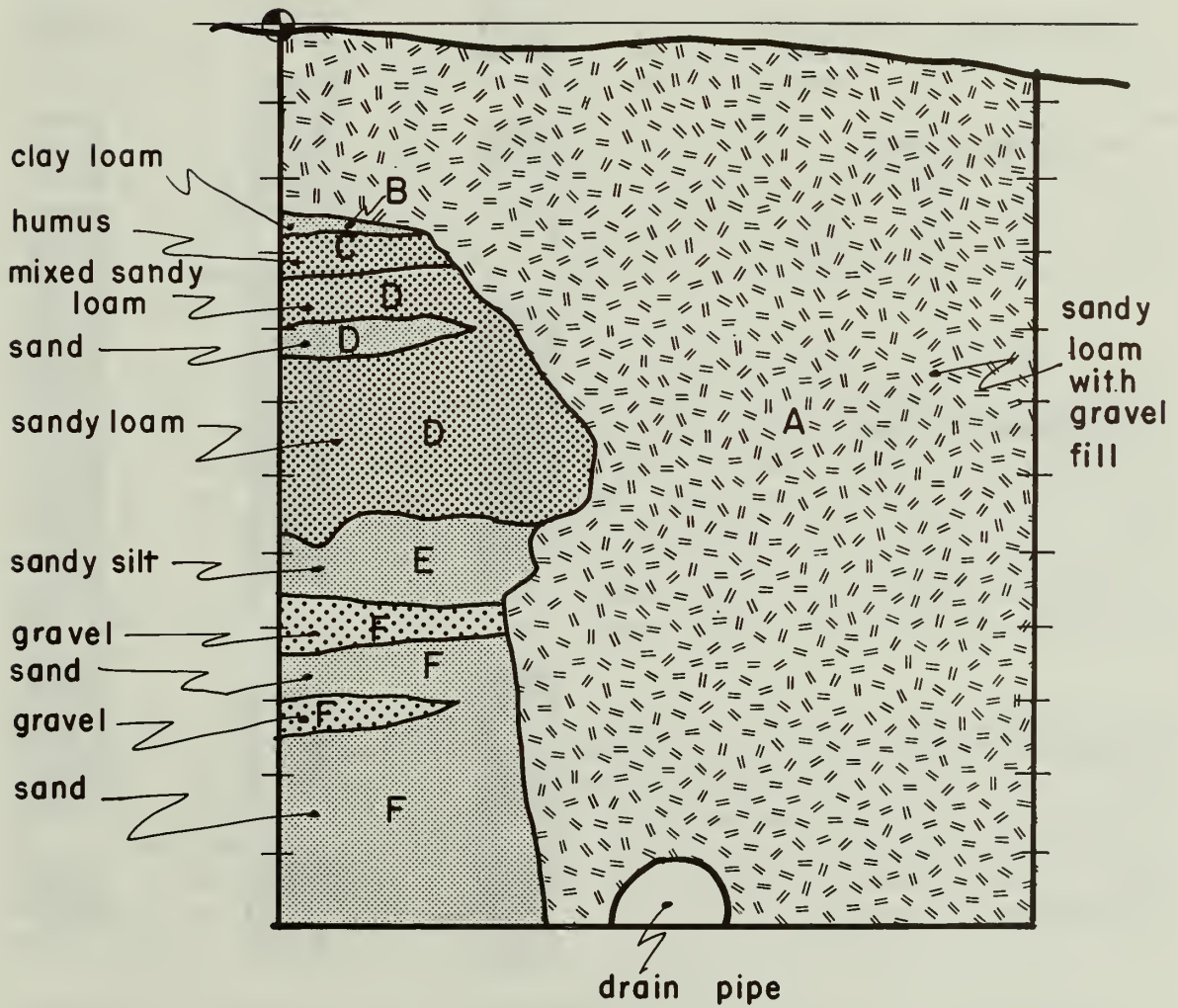
Stratum C is dark humus. It and the sandy loam with sand lenses (Stratum D) below are original to the site and contain the greatest frequency of 19th century artifacts. The sandy silt in Stratum E and the alluvial sand and gravel beds of Stratum F are culturally sterile and predate the historic occupation of the site. No evidence of the south wall of the west gallery was found in either Stratum C or D.

For statistical analysis purposes, Levels 1 through 3 were combined (Strata A and B) with Levels 8 through 12. Since the undisturbed portions of Levels 8 through 12 were sterile, artifacts recovered in these levels are presumed to have been in the curtain drain trench. Level 4 corresponds roughly to Stratum C; artifacts in Levels 5 through 7 came mostly from Stratum D. Frequency distribution for major class artifacts is shown in figure 12. A chi square test of artifacts in each major artifact class (Food Storage, Beverage Storage, Food Serving, Window Glass, Nails, and all other classes) for these three groups of strata yields a chi square value of 45.584 (df = 10). This value indicates that there is a significant difference in the frequencies of these classes through time in this unit. These differences shed some light on the activities taking place during the different periods of soil accumulation.

The NPS period layers are characterized by a slightly higher Beverage frequency (9.3% as opposed to 4.9% in Stratum C and 2.6% in Stratum D) and a greater variety of types of artifacts. A high variety in types appears typical of most very recent deposits, as not enough time has passed to cause extensive deterioration of materials. The "Other" class tested statistically includes 3 food bones, 6 sherds from a flower pot, 5 fragments of tar paper, light bulb and lamp glass, three pieces of hardware, 2 pieces of paper towel, a slate tablet fragment, a medical thermometer, a 1 inch grape shot and some styrofoam packing; these items are from classes not represented in the lower levels. While their presence represents no cohesive interpretable pattern, their very randomness implies that this fill came from a variety of locations and/or activities. It seems most likely Stratum A was composed largely of fill left when the large support poles were placed around the Bishop's House (figure 3).

In Stratum B, the only "abnormal" class of artifacts is the Food Serving Class. In this stratum, 18.0% of the assemblage is in this class, as opposed to 6.3 % in Stratum A and the trench, and 2.6% in Stratum B. The Food Serving sherds are characteristically 19th century, including undecorated creamware, and transfer decorated whitewares. While this stratum also contains some foil and plastic, it is probable that these items

EI. 20.57 AMSL



scale 1cm = 10cm

Figure II: North profile of unit N8W40

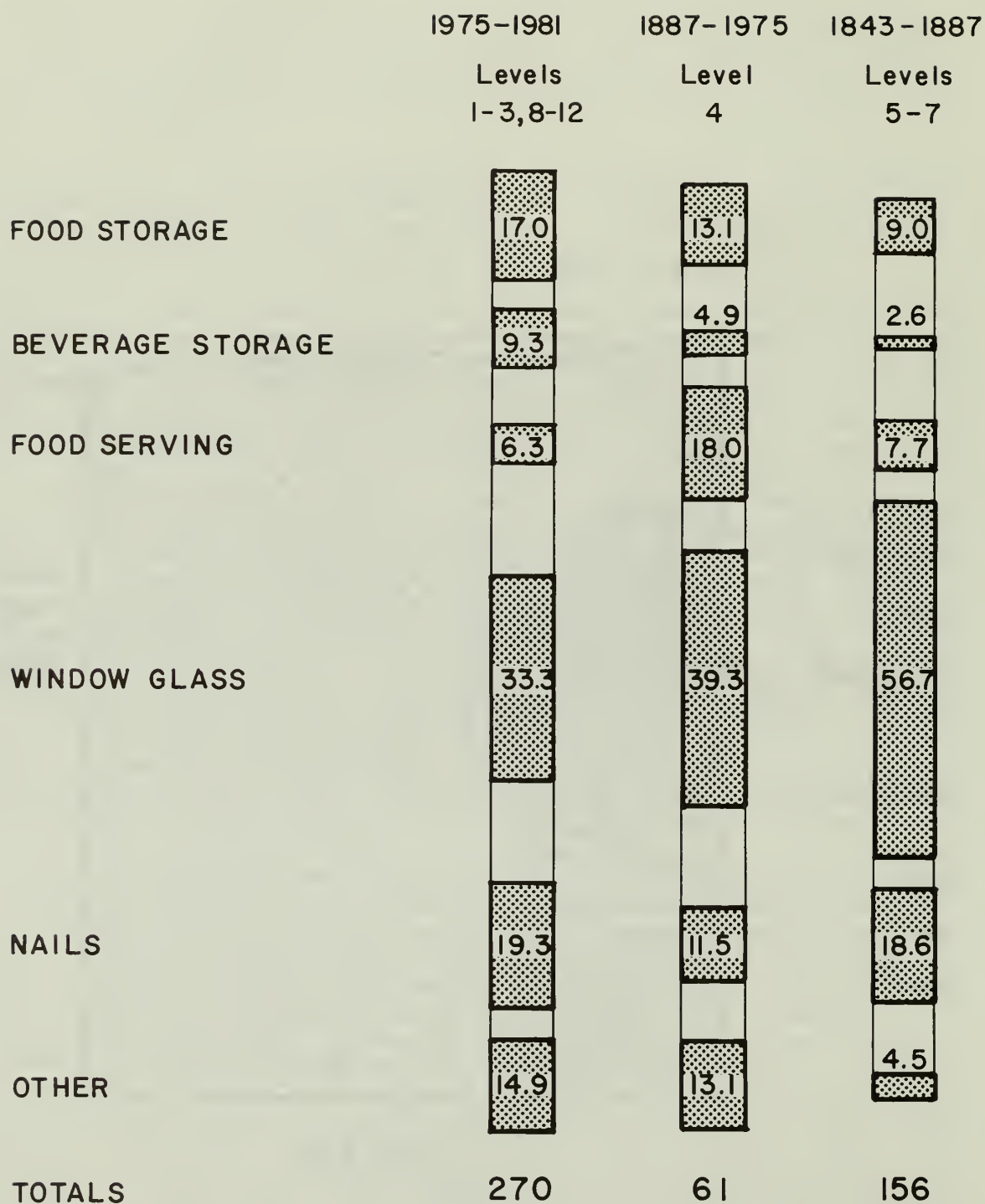


Figure 12: Relative frequency distribution of statistical classes, unit N8W40.

are intrusive from the curtain drain trench. A white celluloid button, and brown glass, in addition to the ceramics just described, implies a late 19th or early 20th century date for this layer (see Appendix C).

Finally, Stratum D is characterized by a high Window Glass Class frequency (56.9% compared to 33.3% in A and B and 39.3% in C).

Since the high window glass frequency in Stratum D skews the other class frequencies downward a second chi square test was conducted for Strata C and D assemblages which eliminated the skewing caused by the window glass. A test of all major classes except window glass in the two strata yielded a value of 7.693 (df = 4) which indicates there is no significant difference between the assemblages of the two lower culture bearing strata except for the incidence of window glass. Again eliminating intrusive very recent items) the presence of "black" glass, aqua glass, amber glass, a forged nail, pearlware, and other 19th century ceramics implies a mid-19th century date for the deposit (see Appendix C for a listing of diagnostic artifacts and their dates). It is likely that the high window glass frequency was caused by the demolition of the original west gallery in 1887. It may even be possible to equate Stratum C with a post-1887 humus accumulation on the site, and Stratum D with the 1845 to 1887 use of the Bishop's house.

A few individual artifacts are worthy of special note in this unit. Two wooden pegs were recovered, which are similar to those used in the original construction of the Bishop's House (figure 9). Unfortunately, they were recovered from Levels 1 and 3, in the Stratum A fill which, as stated earlier, could have come from anywhere on the Bishop's House site. As a result, stratigraphic context is lost. Both pegs are 5 inches long; one is 1½ inches in diameter and the other ¾ inches in diameter. They are crudely carved at the pointed end, and battered and split on the hammered end. They may have been lost during renovation activities.

A wrought nail from Level 7 is unique to this investigation. Hand wrought nails continued in use in America as late as 1850 (Fontana and Greenleaf 1962:54), but cut nails were available as early as 1790. This particular wrought nail is the only one observed by this investigator at Sitka. Neither Shinkwin (1977) nor Hsu found hand-wrought iron nails. It may relate back to the original construction of the Bishop's House. Note that Level 7 is the lowest culture bearing level outside the curtain drain trench.

An unusual bone button was recovered from Level 1. Instead of the usual four evenly spaced holes around a small center hole, this one had three unevenly spaced holes around a large center hole (figure 9).

In conclusion, there are three major deposits uncovered in Unit N8W40. Extending from ca. 34 cm to 68 cm below the 1981 ground surface was a sandy loam with sand lenses (Stratum D). This stratum contained mid-nineteenth century artifacts, including a hand-wrought nail probably used in the original construction of the Russian Bishop's House. The deposit appears to have accumulated between 1843 and 1887. A high relative frequency of window glass tentatively dates this layer to the destruction of the original west gallery in 1887.

Stratum C, a humus deposit above Stratum D, is from 28 cm to 34 cm below the surface. The change in soil composition may have resulted from a change in access to the Bishop's House. Before 1887, the area around N8W40 would have been under a front stair; after 1887 it was exposed to the sunlight. Stratum C contains artifacts characteristic of the late 19th and early twentieth centuries. It probably dates from 1887 to ca. 1975.

Strata A and B are very recent deposits caused by NPS renovation activities. They are primarily excess fill left from excavation of holes for the support poles when the Bishop's House was jacked up to replace its foundations. The inclusion, therefore, of mid-nineteenth century artifacts in this very recent deposit is not unlikely. Styrofoam, plastic, paper and cigarette butts in this deposit confirms its recent date. Furthermore, we know the temporary curtain drain was placed in November, 1978.

RUSSIAN BISHOP'S HOUSE BACK YARD

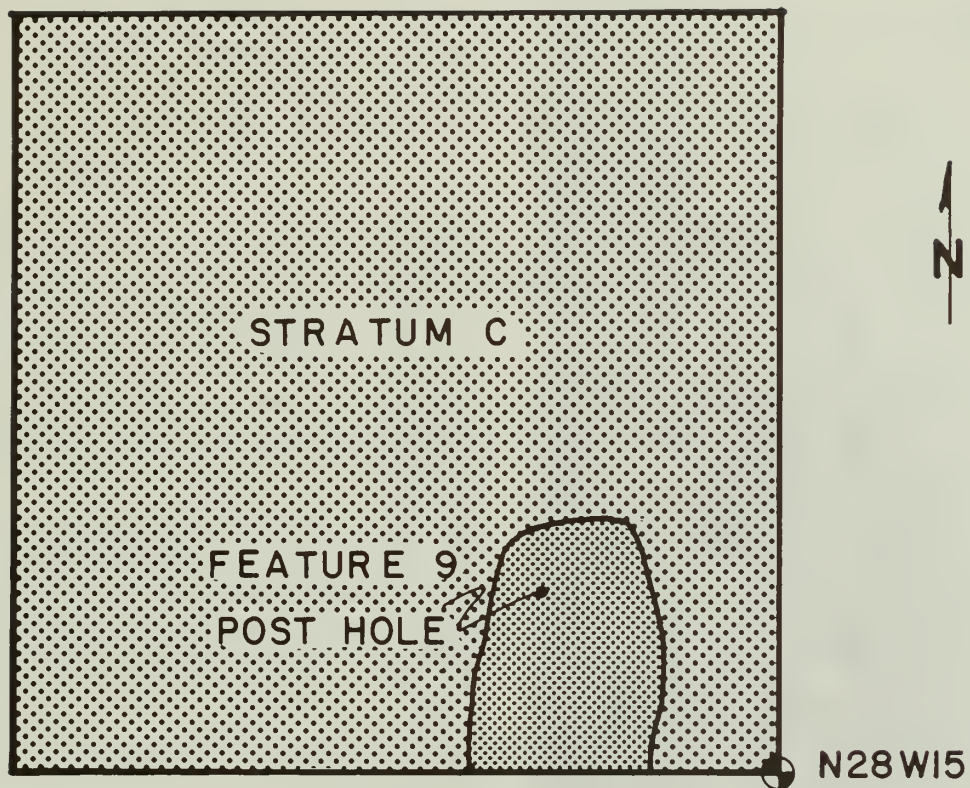
Two units were excavated in the back yard of the Russian Bishop's House to get a sense of the original grading of the back yard. The public school playground to the north of the NPS property is raised on fill to provide a level playing surface for a baseball diamond. It is obvious that much of the fill has slumped into the Bishop's House back yard. Prior to landscaping design, the architect wanted information regarding the original depth of the surface. N28W15 was placed about halfway between the Bishop's House and the north property line; N36W37.5 was placed about 1 meter south of the north property line in the estimated location of a privy observed in a ca. 1890 photograph (figure 1).

N28W15

Four distinct strata were observed in this unit (figure 13). Stratum A consisted of a black sand and gravel with a black sand lens. It contained virtually all the artifacts recovered from this unit.

Stratum B is a black humus which marks the surface of the ground before the deposition of Stratum A. It appears that there are very few, perhaps no, artifacts in this layer. No artifacts were found in Level 5, where much of Stratum B is found. Furthermore, Level 4 contained only 7 artifacts, and much of Stratum A intrudes into Level 4. The 7 items in Level 4 are undiagnostic. For practical purposes, therefore, it appears that Stratum B is sterile.

In the south profile of the unit, (figure 13), Stratum B dips down in a post hole about 35 cm long (north to south) and 23 cm wide (east to west). The hole is 26 cm deep. This post hole is 6.1 meters north and 1.4 meters east of the northeast corner of the Russian Bishop's House. In a photograph dated ca. 1900 by Cloyd (1982; 159), a water tower can be seen to the northeast of the house (figure 14). A newspaper article of August 27, 1904 reads



EI. 24.59 ' AMSL

scale 1cm=10cm

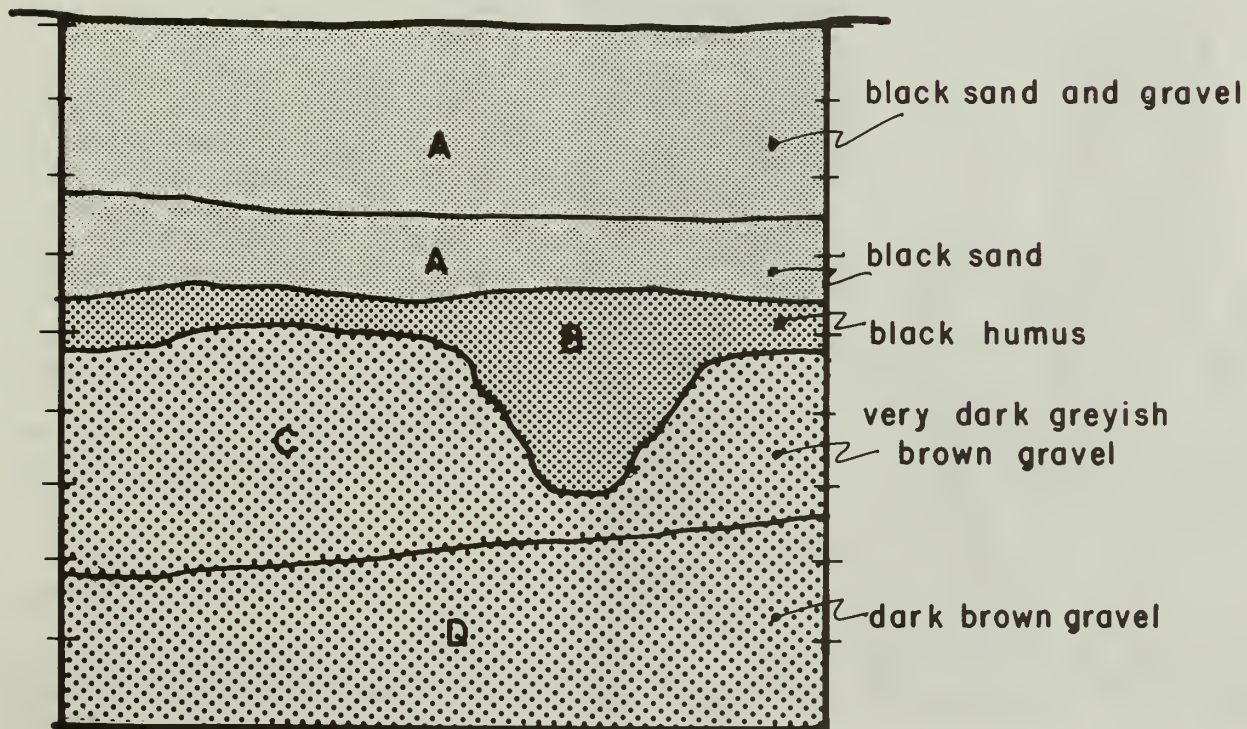


Figure 13: Plan and south profile (looking north) of unit N28W15.



Figure 14: Ca. 1904 photograph of the Russian Bishop's House and Old School with water reservoir between and behind the two buildings. Looking northwest (E. W. Merrill, photographer, Sitka National Historical Park).

Improvements in the shape of water supply have been made in Bishop Innocent's apartments at the Russian Mission. The water is carried by pipes from a reservoir to a bath and lavatory both of which are substantially and elegantly fitted. Hot and cold water can be obtained at anytime (Sitka Alaskan 1904:3).

No doubt this new water supply is the tank seen in the photograph. It is believed the post hole was formed by later removal of a support post for the water tank. This article revises the ca. 1900 date on the photograph to post-1904.

The intrusion of the hole into the sterile, very dark greyish brown, very loose gravel of Stratum C dates this layer to pre-1904. The loose dark brown gravel below it is likewise sterile.

Excavations continued to 110 cm below the surface in an effort to find the mid-nineteenth century surface. However, the loose gravel threatened to collapse on the excavator, so digging was stopped in this area. It was not anticipated that site grading would require removal of more than a meter of over-burden, so there is little danger of impact to important resources at this location.

In an effort to determine whether artifacts from Levels 1 and 3 were drawn from the same population, (i.e. deposited homogenously throughout the stratum), a chi square test was conducted on all major classes. Food Serving and Beverage Class artifacts were combined since there was an insufficient number of the former artifacts to be tested correctly. A chi square value of 2.472 (df = 4) indicates there is no significant difference in artifact distribution between the levels. Therefore, artifacts from all three levels can be grouped together.

Every indication suggests that most artifacts in this layer were deposited within the last forty years. A 1941 penny in Level 1, a Marlboro cigarette pack in Level 3, the green glazed whiteware, common during the 1930's and stippled brown bottle glass all substantiate this assessment.

The distribution of major artifact classes in this post-1940 deposit, is shown in figure 15.

The high Beverage frequency (52.9%) seems characteristic of recent deposits at the site, as well as the low Food Serving frequency (see discussion of post-NPS levels in N8W40, N4W15 and N0W2). Personal artifacts can be attributed to the school children using the playground 10 meters to the north. None of the artifacts are particularly unusual or of special interest.

N36W37.5

A unit was excavated in the northwest corner of the property. Besides trying to determine the original grade behind the building, this unit was placed in an area where a privy was believed to have been situated.

DOMESTIC ARTIFACTS	L.1	L.3	L.4	Total
Food Storage	21	12	3	36
Beverage	72	38	1	111
Food Serving	5	2	-	7
Food Remains	-	1	-	1
Total Domestic	98	53	4	155
<hr/>				
STRUCTURAL ARTIFACTS				
Window Glass	22	7	-	29
Nails	10	4	1	15
Utilities	2	-	-	2
Hardware	2	1	1	4
Total Structural	36	12	2	50
<hr/>				
PERSONAL ARTIFACTS				
Clothing	1	1	-	2
Leisure Time	1	1	-	2
Other Personal	1	-	-	1
Total Personal	3	2	-	5
<hr/>				
ACTIVITIES ARTIFACTS	-	-	-	-
<hr/>				
TOTAL CLASSIFIABLE ARTIFACTS	137	67	6	210
<hr/>				

Figure 15: Groups and Classes in N28W15.

Determination of the precise location of this privy would enable NPS to plant large trees along the north property line, yet avoid this potentially significant resource. N36W37.5 is located 13.95 meters north and 0.88 meters west of the northwest corner of the main portion of the Russian Bishop's House.

A photograph dated at ca. 1890 (figure 16) shows a wood privy located along the north property line almost directly behind the west gallery of the Bishop's House. The Russian Orthodox Church records for repairs to the Bishop's House in 1887 includes the following item: "Two latrines built behind the house, each with two compartments and pits under the stools" (Mote 1981:63). In another photograph (figure 17) the priest poses with six beehives on the north side of the Bishop's House. It is clearly taken from a position far enough north of the house to show the privy. This photo clearly shows the absence of a privy where one is seen in the 1890 photo. An article in the Sitka Alaskan, dated September 15, 1900, states that "Father Methodius of the Sitka Russian Mission" brought in two hives of bees in May, which, by the time the article was written, he had expanded to six hives. From this article, which makes it clear that Father Methodius' bee hives were a new feature in Sitka, it is possible to date the photograph to post-1900. Since the privy was constructed in 1887, and it is not seen in the bee hive photograph, we can assume the structure was abandoned and the pit refilled before 1900.

A portion of the privy pit was located at the southeast corner of unit N36W37.5 (figure 18). It had been excavated through culturally sterile pea sized gravel (Stratum F) effectively dating this stratum to pre-1887. It was refilled with an equally sterile sandy loam (Stratum E).

Apparently over some period of time the refilled pit settled, and it appears that the resulting depression served as a place to dispose of ash and charcoal from the fireplaces. This would have occurred in the early 20th century. As can be seen in the unit's profiles (figure 18), this burned debris, Stratum D, consists of four thin layers of loam with varying degrees of charcoal, and ash.

Strata A, B, and C, above the refilled privy pit, are composed of loam with varying amounts of gravel, clay, and sand. Artifacts were not collected from these layers. Their obvious contemporaneity with recent 20th century layers in N28W15 suggested that careful screening and artifact collection would have been an inefficient use of time.

The only artifacts collected were in Levels 7, 8, and 9. Artifacts in Levels 7 and 8 were combined since they all were recovered from Stratum D. Level 9 artifacts were clearly associated with Stratum E, the ca. 1900 backfill. There is a considerable difference between the Stratum D and Stratum E assemblages. The former contains 7.5 times the artifacts of the latter. The functional distribution is dramatically different as can be seen in figure 19. The absence of Food Containers and Beverage containers in Stratum D contrasts with the more "normal" distribution in the lower fill.

The class labelled "Burnt" in the Activities group requires special mention. These artifacts are badly charred fragments of bone,



Figure 16: Ca. 1890 photograph of school children at the Russian Bishop's House with privy seen in upper left looking north (Archives, Alaska Historical Library).



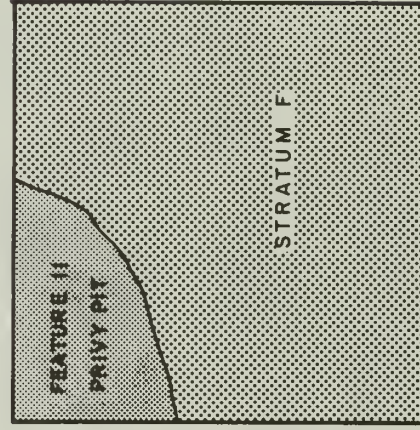
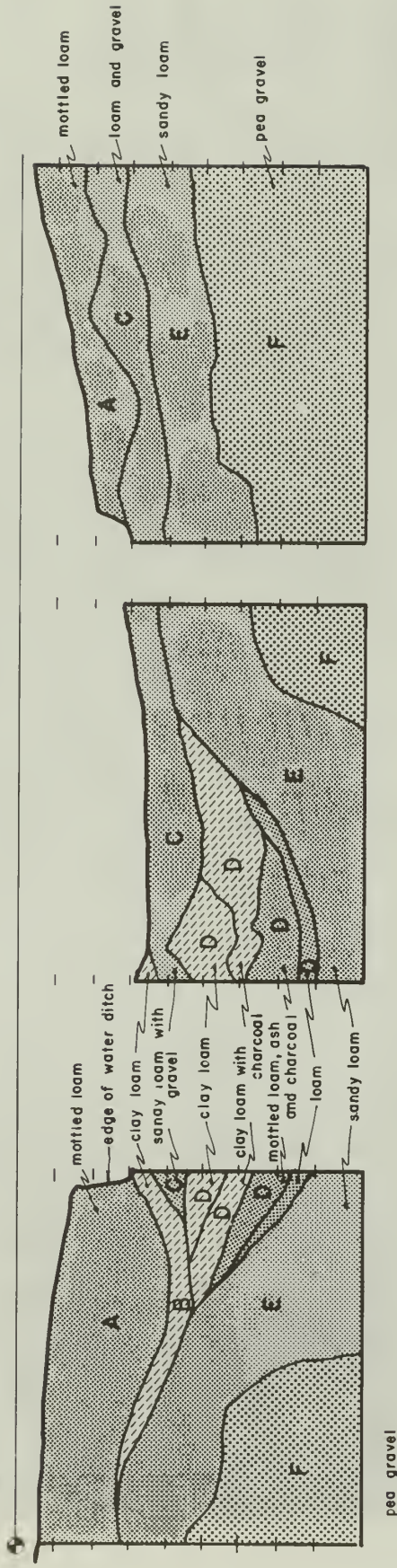
Figure 17: Ca. 1900 photograph of the north side of the Russian Bishop's House with priests and beekeepers. Looking south (E. W. Merrill, photographer. Sheldon Jackson Library, Sitka).

EAST PROFILE

SOUTH PROFILE

WEST PROFILE

El. 26.49' AMSL



PLAN

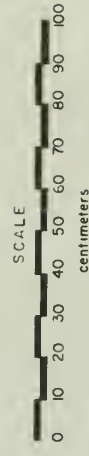


Figure 18: Plan and East, South and West profiles of unit N36W37.5

presumably food bone, and burnt lime. In addition, it should be noted that the assemblage includes 37 ferrous lumps which are fused to chunks of charcoal, burned bone, and lime. The badly corroded nails in this same level also are fused to chunks of charcoal and burned bone. It appears that much of the material underwent a burning, causing nails and other ferrous materials to fuse together. It seems likely that domestic trash (including bone) and scrap lumber were burned in this location, in the shallow pit formed when the refilled privy pit settled.

The 35 fragments of electric light bulb are apparently from a single item, which probably was broken after the burning occurred.

The fourteen artifacts in Stratum E are undiagnostic. The absence of plastic, common in post-World War II deposits, and presence of "black" glass suggests a late-19th century date, in keeping with the supposition that the pit was filled before 1900.

THE PRIEST'S RESIDENCE

Across Monastery Street, and directly west of the back portion of the Bishop's House is a small frame building known as the Priest's Residence, or House 105. This building was originally built in 1887 as a rental property for the Russian Orthodox Church. It was situated on the east side of Monastery Street near the intersection of that street and Etolin Street. It was moved to its current location after 1936 when the public school yard was expanded into a playground.

Little or nothing is known about the ground which the Priest's Residence presently occupies. Before utilities and new foundations are added to the structure so that it could be used by the National Park Service, archeological tests were undertaken. Originally, a one meter square test unit was placed at approximately N23W50.4. When a buried wood platform was encountered 12 to 15 cm. below the ground surface, this unit was expanded one meter to the west (N23W51.4). In addition, a 25cm wide trench was dug three meters towards the west and the overburden was stripped from the top of the platform 1.5 meters north of the two more formally excavated units (figure 20). Only the first unit, N23W50.4 was excavated fully to a meter below the ground surface (figure 21).

Three strata were uncovered. Stratum A is a black humus covering the wood platform (feature 10). The artifact collection was distinctly very recent 20th century material: plastic wrappers, aluminum pull tabs, a cigarette filter and the red plastic covering of an automobile tail light suggest that most of the material has collected in the last 20 or 30 years. Comparison of the material collected above the wood platform in both N23W50.4 and N23W51.4 yield some interesting points. A chi square test was conducted on the assemblages above the wood platform in both units. A chi square value of 23.016 (df=5) indicates that there is a significant difference between the two assemblages. What could cause this difference? A glance at the relative frequency graph in figure 22 suggests the most probable cause: the Beverage frequencies. Elimination of this class from the calculation yields a value of 3.967 (df=4) indicating that all other artifacts were deposited in essentially the same

	L.8	L.9	Total
DOMESTIC ARTIFACTS			
Food Containers	-	2	2
Beverages	-	5	5
Food Serving	1	-	1
Total Domestic	1	7	8
STRUCTURAL ARTIFACTS			
Window Glass	2	4	6
Nails	50	3	53
Utilities	35	-	35
Hardware	1	-	1
Total Structural artifacts	88	7	95
PERSONAL ARTIFACTS			
Clothing	2	-	2
ACTIVITIES ARTIFACTS			
Medicine	1	-	1
Burnt	13	-	13
Total Activities	14	-	14
TOTAL CLASSIFIABLE ARTIFACTS	105	14	119

Figure 19: N36W37.5 artifact groups and classes.

PRIEST'S RESIDENCE

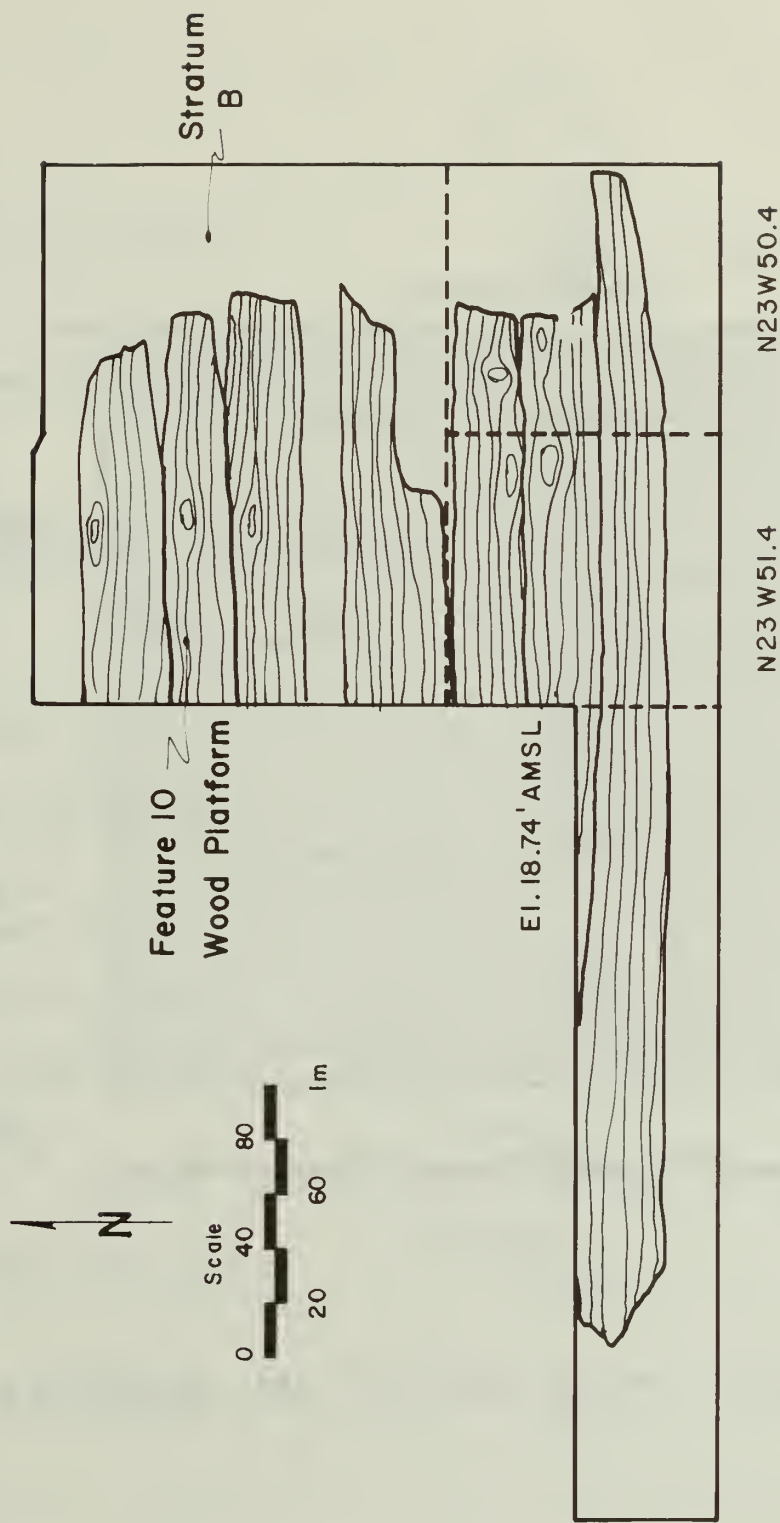


Figure 20: Plan of excavations south of the Priest's Residence.

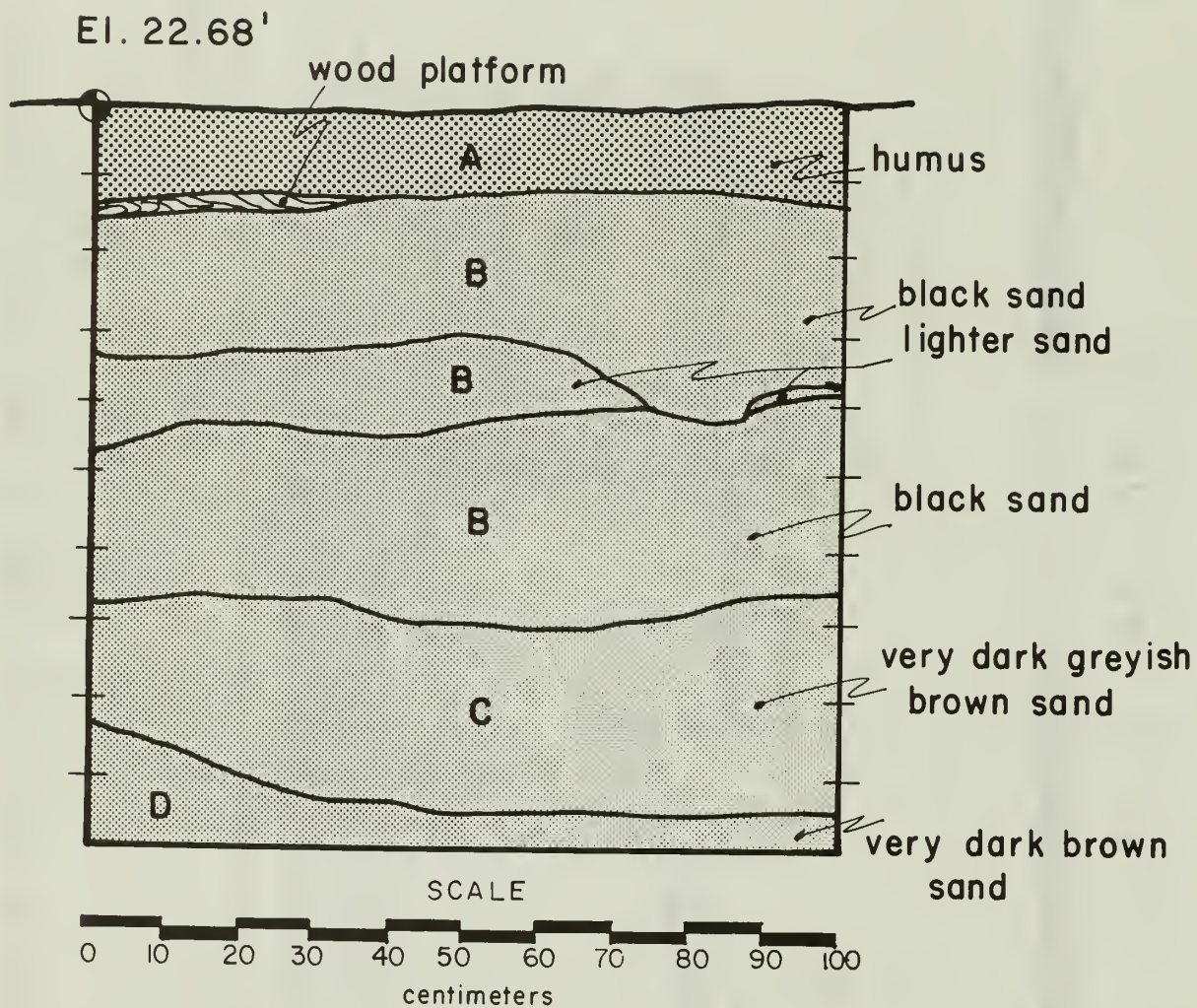


Figure 21: North profile of unit N23W50.4

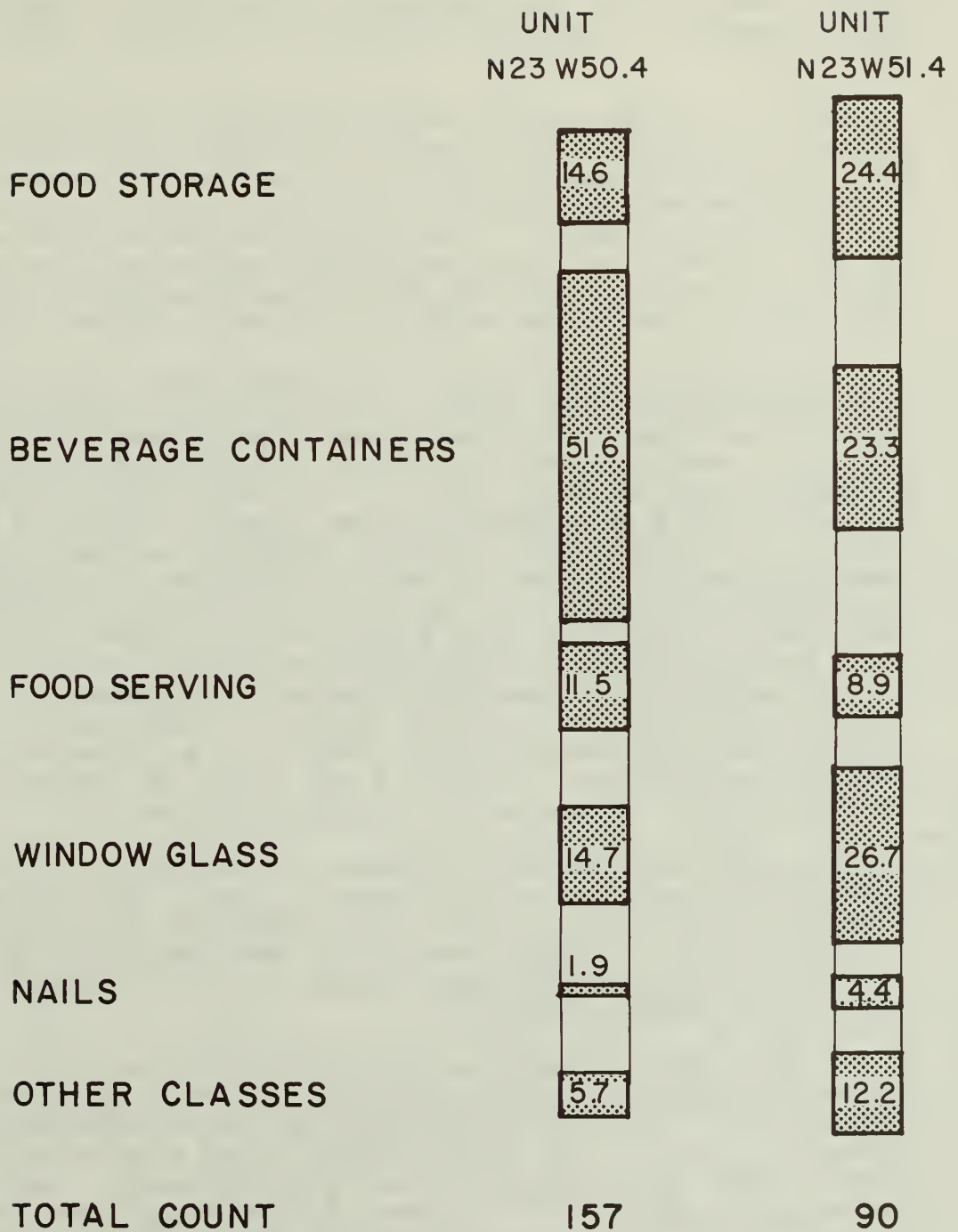


Figure 22: Relative frequency distribution of statistical classes in the 20th century deposits in units south of the Priest's Residence.

manner. The variance of deposition of Beverage class artifacts is no doubt caused by the closer proximity of the road to N23W50.4, where passing motorists or pedestrians dispose of beer bottles, soda cans, and pull tabs.

Feature 10 is a wood platform lying approximately 12 cm below the ground surface. It consists of ten boards of varying width running east to west. It measures approximately 4.3 meters by 2.15 meters, with the long side oriented east to west. The northern edge is only 65 cm south of the Priest's Residence. It seems likely that the platform served as a car port or work space after the building was moved to the site in the 1930's. A map taken from old NPS files and attached to a letter dated 1959 shows a level space south of the Priest's Residence (figure 23).

Below the platform, Stratum B is a black sandy layer with a lighter sand lens running through the middle. Artifacts are not present in or below this light sand lens. Since both Levels 2 and 3 below the wood platform are in this homogenous black sand layer, it was assumed that the artifact assemblages would be very similar. A chi square test of artifact classes in Levels 2 and 3 of N23W50.4, however, yields a value of 30.241 (df=5). There is a significant difference between the two assemblages. Examination of the relative frequency graph (figure 24) suggests that the window glass is causing the variation. Elimination of the window glass class from the calculation gives a value of 7.130 (df=4), confirming that other than the differing window glass frequencies in the two levels, the artifact assemblages are essentially identical. The deposit is a naturally occurring one and the horizontal lensing characteristics of the sand suggest gradual accumulation over time. It is probable that the higher window glass frequency in Level 3 was caused by the proximity of a structure early in the occupational history of the site.

Few diagnostic artifacts were recovered from the deposit. All of those in Levels 2 and 3 were typically 19th century items. The presence of clear, brown, and bright green colored bottle glass, milk glass, and wire nails in the lower level implies a date in the later half of the century, but nothing dates the deposit more closely, with the possible exception, again, of the window glass.

It has been observed by some historical archeologists that window glass fragments in archeological deposits tend to be thicker the more recent the deposit. This is principally due to the fact that improved technology has allowed the use of larger window panes, which in turn require thicker glass in order to avoid being broken by its own weight. Decreasing cost has no doubt assisted in the trend towards larger panes and thicker glass. The change in thickness through time has been demonstrated to be a relatively safe chronological tool when used in conjunction with other dating methods and when frequencies are relatively large enough (Roenke 1978; Teague 1980; Chance and Chance 1976). This dating method involves measuring the thickness of each sherd of window glass and calculating the mean and mode thicknesses. While individual sherds vary in thickness, Roenke (1978) effectively demonstrated that the modes increase through time. This takes into account changes in thickness due to differing manufacturing techniques, individual manufacturers' specifications and varying thickness in each individual pane of glass.



Figure 23: 1959 map of Sitka.

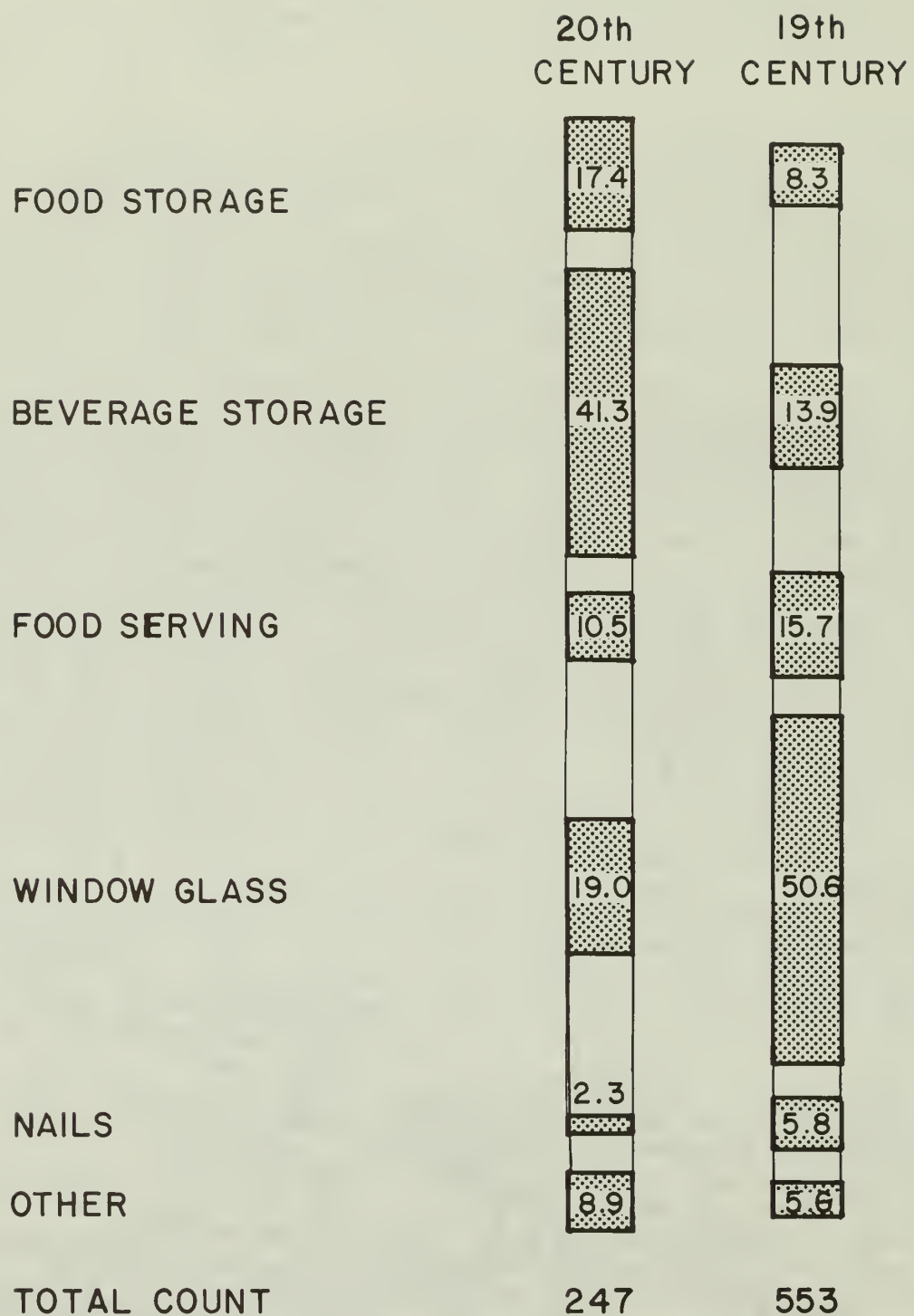


Figure 24: Relative frequency distribution of statistical classes in units N23W50.4 and N23W51.4.

Since the window glass south of the Priest's Residence was found in at least four differing shades of green and grey, it was believed that more than one window was being represented in the deposit. In the absence of other dating methods for this deposit, it was decided to attempt measuring the thickness of the window glass in Levels 2 and 3 of N23W50.4. Of the 148 window glass sherds in Level 3, the mean thickness was 0.062 inches and the mode 0.064 inches; in Level 2, the mean is 0.062 inches and the mode is 0.055 inches. According to Roenke (1978:116) these measurements suggest a date of 1845 to 1855.

This investigator is a bit reluctant to accept this early a date for the deposit on the basis of this one dating technique. While the other artifacts do not necessarily contradict this date, the heavy preponderance of brown bottle glass, normally seen after the 1880's, and the bright green glass, more often observed in the 20th century, suggest a later date.

There are any number of explanations for the early date suggested by the window glass but contradicted by the later dating artifacts. The most obvious to this investigator is the fact that Sitka was an isolated frontier community, and that the Russian American Company did not make substantial profits in the later period of its history (1840-1867). It is possible that old, stockpiled, and possibly cheaper glass was being sent to the colony. It should also be noted that most manufactured goods in the later period were shipped to New Archangel around the world from Europe and Russia. The dating scheme derived by Roenke (1978) was based on archeological data from 15 British and American sites dating as early as 1824 and as late as 1915. Roenke concludes that British and American glass seemed to correspond in thickness since they were dealing on a competitive market (Roenke 1978: 117). However, it is possible that the Russians were manufacturing window glass of differing thickness since their market would tend to be different than that of the British and Americans. It should be noted, however, that the author has found no records of the source of window glass in New Archangel, and only assumes that it might have come from Russia. Such a proposal could only be tested on other Russian sites in Alaska.

Unfortunately, little historical information is available for the piece of land now occupied by the Priest's Residence. The 1845 map of New Archangel prepared by the Russian American Company (figure 4) shows this area as gardens. The 1867 transfer map (figure 25) does not show a building in the vicinity of this artifact concentration. However, some distance to the north is building no. 99, which is listed as a "Dwelling house with out buildings" in Mote (1981: 194). DeArmond elaborates by saying that this building was:

A dwelling, sold by the Russian-American Company to Bazul Sligostieff for \$1 on November 28, 1869. Sligostieff sold it the following year to Emanuel Shirpser for \$185 and Shirpser sold it to Dmitry Sipiagan for \$250 (DeArmond 1981: 89).

Two photographs taken in 1867 (figures 26 and 50) show a small outbuilding to the west of the Russian Bishop's House. The perspective on the photographs is such that it is difficult to tell if the shack is in the vicinity of the excavation units or much farther to the west.



Figure 25: 1867 transfer map of Sitka. Building No. 99 is the Sipiagin House, No. 102 is Russian Bishop's House, and No. 103 is the Russian Hospital.



Figure 26: 1867 photograph of Sitka and Crescent Bay. A small outbuilding, the Russian Bishop's House and the hospital are marked with arrows. Looking west (Edward Muybridge, photographer. Sitka National Historical Park).

Margaret Osbakken, who lives in the two story Victorian style house to the southwest of the Russian Bishop's House, gave historian Antoinette Shalkop oral information about houses which sat behind hers. Mrs. Osbakken recalls that a log house called the Sipiagin house stood on the west side of Monastery Street. It was owned by Segei Malakhov who inherited it from Olimpiada Segeevna Malakhov Vakhrameev, who was known by a later marriage as Olimpiada Sipiagin. This house burned at an unspecified time, and Malakhov built another in the same general location (Shalkop 1981: 49).

A 1905 survey tract of the Russian Orthodox Church property shows no structures near the excavation units, even though this land is surveyed (figure 27). However, a ca. 1907 photograph (Cloyd 1982: 164) does show the proximity of a 1-1/2 story frame building not unlike building no. 105 that sits there now. Local informants all seem to recall Building 105 being moved to its current site after 1936. It would appear that the log house mentioned by Mrs. Osbakken was building no. 99, standing in 1867. Since the house is probably too far northwest to be associated with the dense artifact clustering south of the Priest's Residence, it is suggested that they were associated instead with one of the "out-buildings" mentioned on the original transfer map. There is little doubt in this investigator's mind that a structure was near the site of the excavation units in the late 19th century due to the high incidence of window glass, nails and non-structural artifacts in the deposit* and the general dating of the artifacts. What the structure was cannot be determined by the available data. The fact that so little information is available suggests that the structure was an outbuilding of some kind and probably was of very little significance.

THE OLD SCHOOL FRONT YARD

One unit was placed south of the Old School in the center of the front yard (NOW2) (figure 1). This area was tested for two reasons: 1) it was suggested as an alternate location for the burial of a fuel oil tank; 2) a front yard test away from the Old School would hopefully provide a sample of undisturbed stratigraphy.

Five strata were uncovered in this area (figure 28). Stratum A is a naturally accumulated black humus, containing large stones and pebbles and very recent artifacts. It is underlain by a very dark greyish brown loam with smaller pebbles. This and the slightly greyer loam beneath it were extensively disturbed by the wheels of earth moving equipment during the previous two years, as the area is somewhat lower than the surrounding ones and is usually quite wet. It was a convenient place to park heavy vehicles (Conrad 1984). Artifact density is high and of mixed dates ranging from a water worn creamware sherd and "black" glass to styrofoam and plastic. The layer terminates about 30 cm below

*The artifact distribution in this unit is discussed in greater detail in the section entitled "Artifact Analysis," pages 97, 98, 102, 103, 112 and 113.

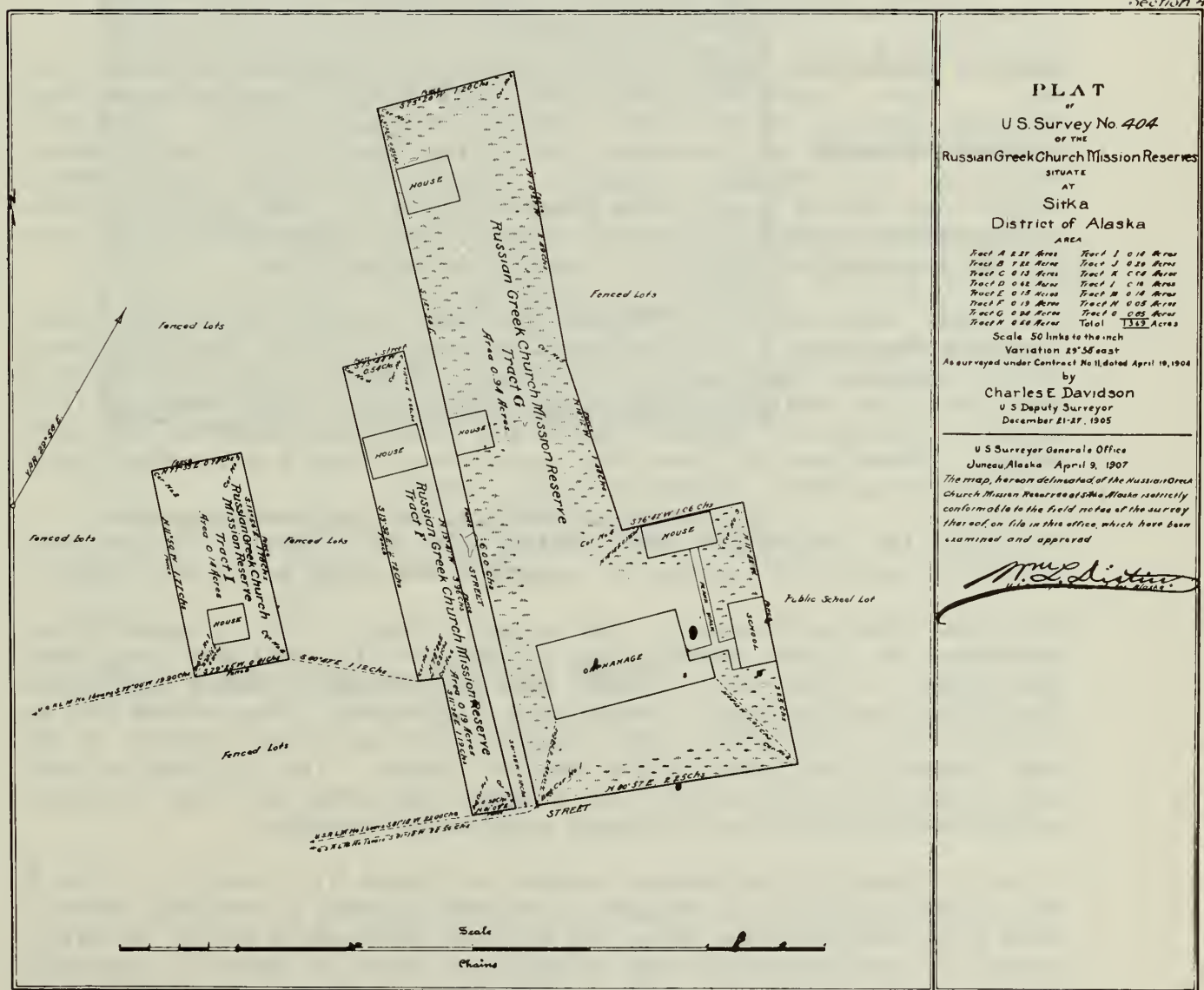


Figure 27: 1905 Survey of the Russian Orthodox Church property.

the ground surface. A slight color difference at 30 cm below the surface separates this layer into two strata; B and C.

Stratum D consists of very dark greyish brown, coarse water worn gravel which may be culturally sterile. A few artifacts in this level probably resulted from an intrusion through this naturally occurring stratum by a trench. This trench runs east to west across the unit and extends into the lighter sandy gravel which underlay Stratum D. The trench is 46 cm wide and 24 cm deep. Its center line is at approximately north 0.30 meters (figure 28). Its purpose is unknown.

The only unusual or particularly diagnostic artifact recovered in this unit was an aqua colored glass sherd which mended with a sherd from a deposit north of the Old School. This crossmending suggests that Stratum B of unit N0W2 and Stratum C of unit N20W1 are contemporaneous.

A complete inventory can be seen in Appendix B.

Level 1 contains artifacts that lay on and just below the surface of the unit. Their functional distribution (figure 29) indicates that most artifacts probably resulted from NPS activities on the site. There is a complete absence of Beverage Containers, and Food Serving items, ordinarily high frequency classes, indicating that very little Domestic activity was taking place in the immediate vicinity. The NPS affiliation is strengthened by high Structural Group (70.6%) and Leisure Time class (14.7%) frequencies compared to those in the lower strata.

The major NPS activity in the area has been building modification which naturally results in a high Structural frequency. In this particular case, window glass and nails appear to be evenly divided at 33.3% and 25.0% of the Structural artifacts, respectively (figure 30). The remaining 41.7% consists of linoleum fragments, sewer and water pipe fragments, and some string. These are all items that could result from the cleaning out of buildings preparatory to rehabilitation.

It should be noted that overall artifact density in Level 1 is fairly low, reflecting general NPS policy of keeping a site clean and free of debris.

The final relative frequency that is fairly high is the Personal Group, consisting of 4 glass marbles and a fragment of a ball clay pipe bowl. The latter is most likely a 19th century artifact probably introduced during building cleanup or nearby soil disturbance. The marbles may be remnants of a time when school children from the school grounds to the east played in the front yard of the Old School. The fact that all four are of the same colors and type suggest that they were lost during a single episode and do not represent a patterned behavior.

Levels 2 through 6 correspond roughly to Strata B, C and D. Strata B and C are probably fill brought to the site sometime in the 20th century. This dark loam contains rocks and artifacts oriented in a wide variety of angles in the soil rather than lying on a plane as occurs in naturally accumulated soils. Furthermore, artifact class frequencies do not appear to correspond to activities known to occur at the site. The presence of

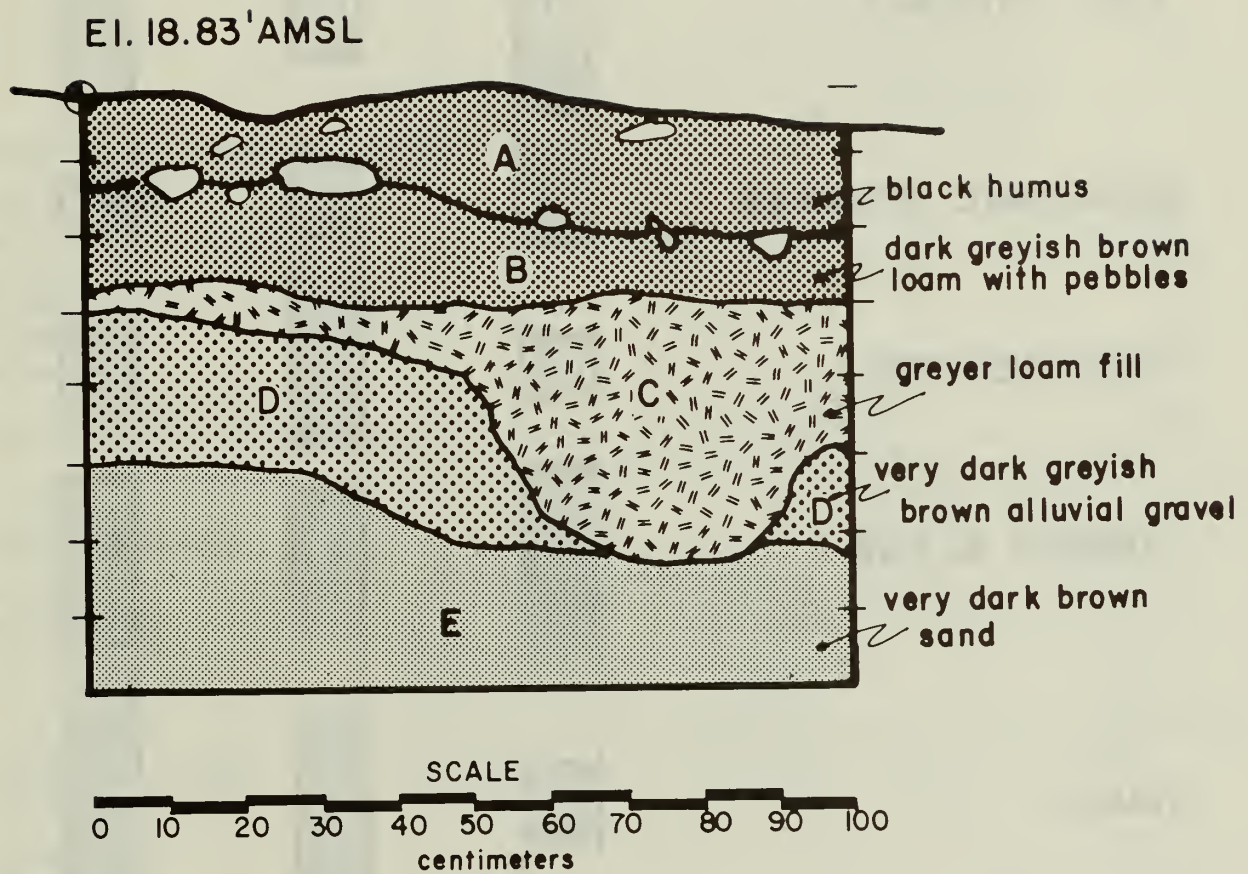


Figure 28: East profile unit NOW2.

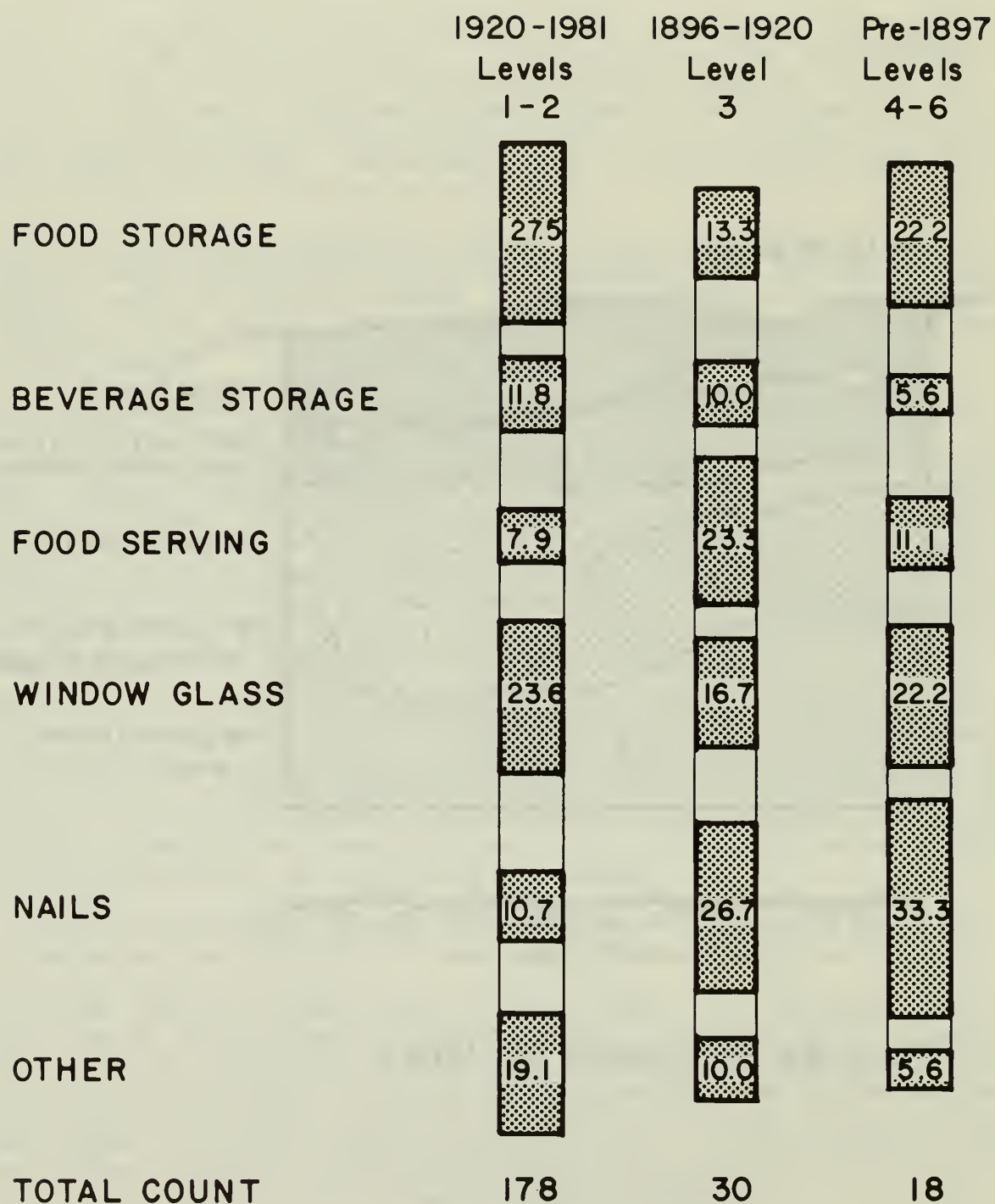


Figure 29: Relative frequency distribution of statistical classes in unit NOW2.

	L.1	L.2	L.3	L.4	L.5	L.6	Total
<u>Domestic Artifacts</u>							
Food Storage	5	44	4	2	1	1	57
Beverages	-	21	3	-	-	1	25
Food Serving	-	14	7	-	2	-	23
Pharmaceutical	-	6	3	1	-	-	10
Furniture	-	1	-	-	-	-	1
Total Domestic	5	86	17	3	3	2	116
<u>Structural and Hardware artifacts</u>							
Window Glass	8	34	5	1	2	1	51
Nails	6	12	8	6	-	-	32
Materials	5	1	-	-	-	-	6
Maintenance and repair	1	-	-	-	-	-	1
Utilities	2	1	-	-	-	-	3
Hardware	2	5	-	-	-	-	7
Total Structural and Hardware	24	53	13	7	2	1	100
<u>Personal Artifacts</u>							
Clothing	-	1	-	-	-	-	1
Leisure Time	5	1	-	-	-	-	6
Total Personal	5	2	-	-	-	-	7
<u>Activities Artifacts</u>							
Education	-	1	-	-	-	-	1
Storage	-	1	-	-	-	-	1
Transportation	-	1	-	-	-	-	1
Total Activites	-	3	-	-	-	-	3
TOTAL CLASSIFIABLE ARTIFACTS	34	144	30	10	5	3	221

Figure 30: Artifact groups and classes, Unit N0W2

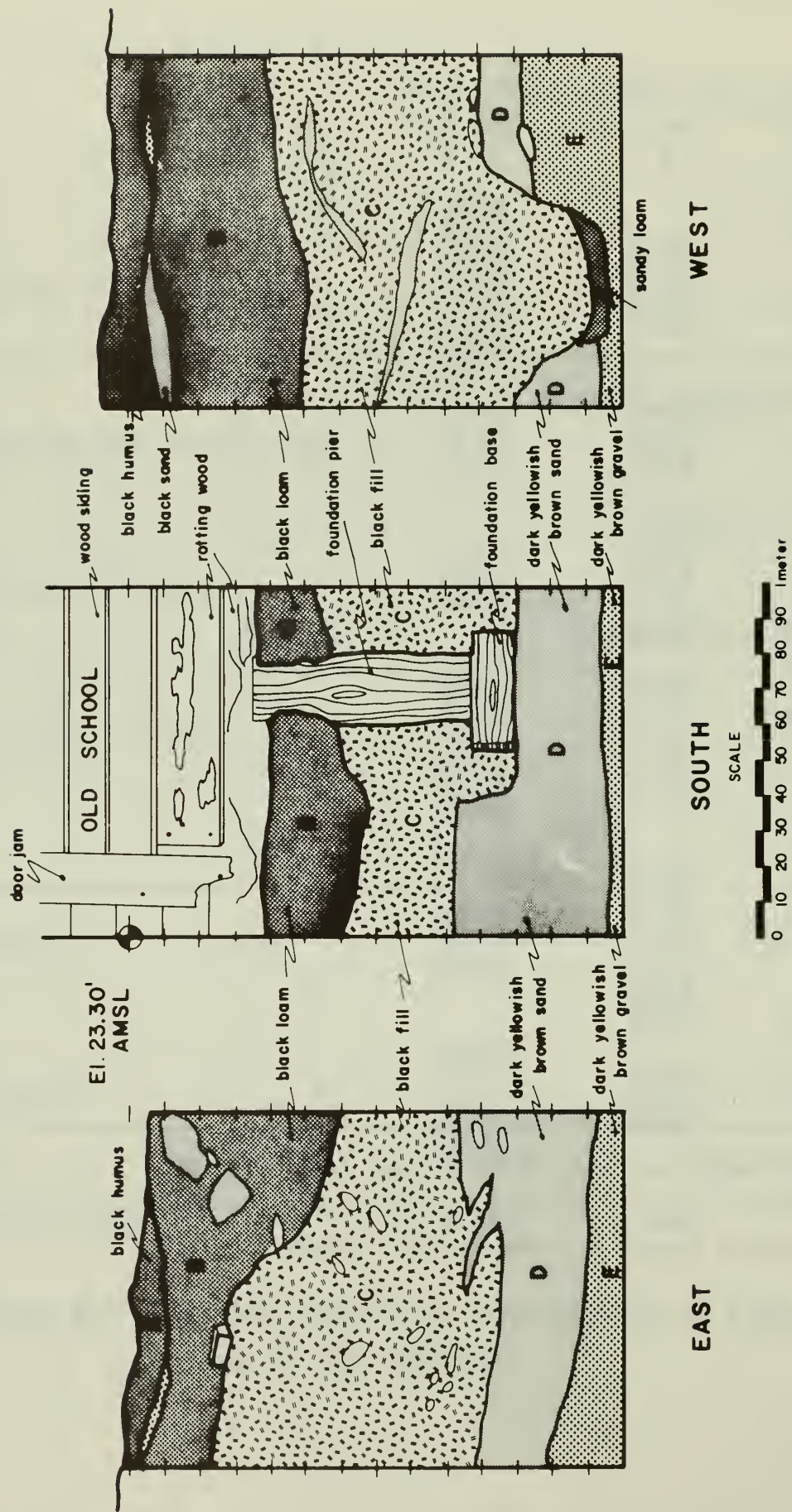


Figure 31: East, south, and west profiles of N20W1

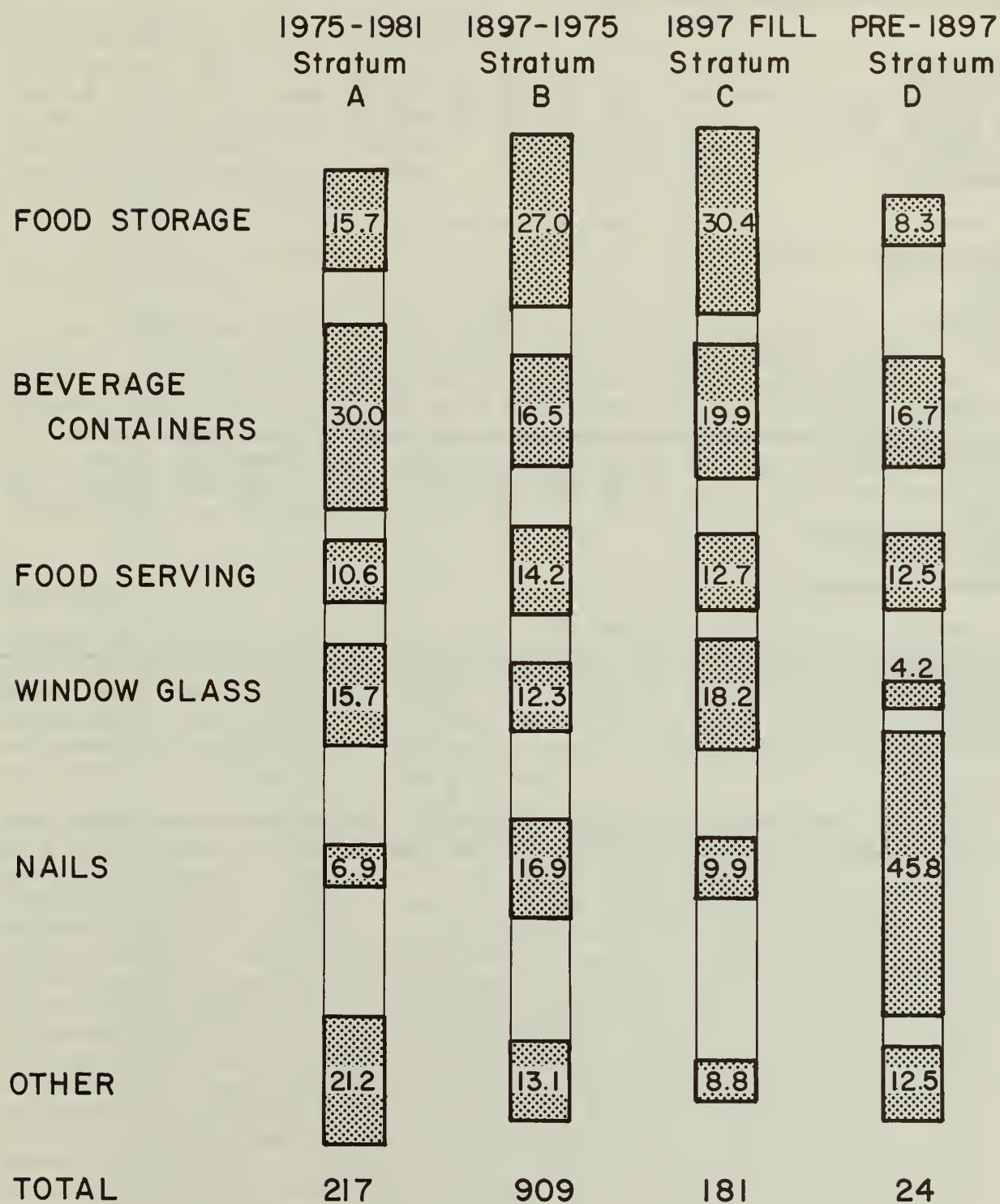


Figure 32: Relative frequency distribution of statistical classes in unit N2OWI.

Figure 33: Groups and Classes in unit N20W1.

	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Domestic Artifacts</u>													
Food storage	34	35	88	76	46	23	7	5	13	7	1	1	336
Beverage containers	65	19	52	45	34	17	11	1	5	2	3	1	255
Food serving	23	9	38	17	65	12	7	2	1	1	3	-	178
Food remains	1	2	14	6	8	1	1	-	-	1	2	-	36
Pharmaceutical	-	-	-	7	3	-	1	-	2	-	1	-	14
Furnishings	1	-	-	-	-	-	-	-	-	-	-	-	1
Total Domestic	124	65	192	151	156	53	27	8	21	11	10	2	820
<u>Personal Artifacts</u>													
Arms	1	-	-	1	1	-	-	-	-	-	-	-	3
Clothing	3	1	6	6	2	-	-	-	-	-	-	-	18
Leisure time	1	4	3	-	1	-	-	-	-	-	-	-	9
Study	1	1	-	-	-	-	-	-	-	-	-	-	2
Coin	-	-	-	-	-	-	-	-	-	1	-	-	1
Total Personal	6	6	9	7	4	-	-	-	-	1	-	-	33
<u>Structural Artifacts</u>													
Window glass	34	11	35	27	39	13	9	5	2	4	1	-	180
Nails	15	22	61	50	21	9	5	3	1	-	10	1	198
Materials	32	15	3	4	2	-	-	-	-	-	-	-	56
Repair and maintenance	-	-	2	-	-	1	-	-	-	-	-	-	3
Hardware, structural	-	1	-	1	1	-	-	-	-	-	-	-	3
Utilities	2	1	1	7	-	-	-	1	-	1	-	-	13
Hardware, miscellaneous	3	2	1	4	2	4	-	-	1	-	-	-	17
Total Structural	86	52	103	93	65	27	14	9	4	5	11	1	470
<u>Activities Artifacts</u>													
Communication	-	-	-	-	-	-	-	1	-	-	-	-	1
Machinery	1	-	3	-	-	-	-	-	-	-	-	-	4
Medical	-	-	-	2	-	-	-	-	-	-	-	-	2
Metal working	-	-	-	-	1	-	-	-	-	-	-	-	1
Total Activities	1	-	3	2	1	-	-	1	-	-	-	-	8
TOTAL CLASSIFIABLE	217	123	307	253	226	80	41	18	25	17	21	3	1331

the trench through the unit suggests that the ground surface was at one time uneven and that fill was brought in to level it out.

The artifact group and major class frequency distributions are shown in figure 29. Little meaningful interpretation of the distribution can be made since it is a fill deposit. It should be noted that most of the Personal and Activities artifacts--a marble, glue tube, and bicycle tire patch--were probably associated with the school children using the public school ground to the east.

THE OLD SCHOOL

It was anticipated that the foundations of the Old School building would have to be replaced as the wood piers had become severely rotted. In order to determine the relative significance of archeological deposits around the building, four test units were placed, one on each side of the structure. They were labelled N20W1, N14W5, N8W2, and N15E1.5 (figure 1). Upon encountering a unique archeological feature predating the building on the south side, an additional three units were excavated: N8W0, N8W1, and N8.5W1.5.

North Side

N20W1 was placed on the north side of the small structure enclosing a staircase on the north side of the building. It was obvious that over time debris had accumulated against the building, as the threshold of the small north door was a few inches below the ground surface. After excavation, it was obvious that the ground surface had risen at least 50 cm since the stair casing had been added.

Five strata were encountered during the excavation (figure 31). Stratum A is a thin layer of humus and sod. It is separated from Stratum B by thin sand lenses. Stratum B is a black humus containing a noticeably different type of artifact assemblage than in the uppermost layer. It appears that the processes forming the two strata were identical; soil color, texture, composition and density were the same. The artifact assemblages, however, are significantly different ($\chi^2=42.204$; $df=5$). A glance at the relative frequency distribution chart will show where these differences are (figure 32). The much lower relative frequency of Food Storage items implies a change from regular domestic activities nearby to an absence of such activities. The relatively high Beverage frequency suggests that Stratum A formed during a period of abandonment. The unit is only 3.3 meters away from a sidewalk which leads to the public school playground. If vegetation were allowed to grow up (as was the case in 1981 when these investigations took place) the area probably concealed easily disposable items tossed by late night revelers. Fifty six sherds (85%) of the bottle glass found in Stratum A were brown beer bottle glass.

The relatively low nail frequency suggests that Stratum A accumulated during a period of low repair activity or economic hardship. Finally, the Other class appears considerably higher than in the strata below. Of the



Figure 34: 1919 photograph of the Sitka public school children and a maypole in front of the Old School, looking northwest. Note the shed(s) behind the building (Sheldon Jackson College, Merrill Photo Collection).

46 artifacts in this class, 32 are in the Structural Materials class and include fragments of linoleum and roofing material. These items may have been deposited during a time when the building was being cleared of rotted material.

All the activities suggested by these figures indicate that, although soil forming processes remained the same for periods in which Strata A and B were accumulating a change in area activity had occurred. A curtailing of domestic activity, accompanied by uncontrolled growth of vegetation north of the Old School, low building repair activity and evidence of a clearing inside the building all occurred in the five years since NPS acquired the site. It is most likely that Stratum A dates from 1975 to 1981.

Stratum B appears to be material that has migrated downslope over a number of years. This black humus contained more than twice the artifacts in all other strata combined. Stratum B covers the lower 50 cm of the stair casing wall, indicating it has accumulated in the years since the stair casing was added to the building. Cloyd (1981) suggests that this occurred in 1908. The profile in figure 31 shows that Stratum B has accumulated since the stair was built. We can safely assume that this layer dates from ca. 1908 to 1975.

A chi square test of the six statistical classes in Strata B and C shows that there is a small, but significant difference in the two artifact assemblages ($\chi^2=12.736$; $df=5$). During the calculation of the statistic, it seemed obvious that the nails and window glass were causing the difference. To test this, the two classes were deleted from the calculation. A chi square test of the four remaining statistical classes in the two strata showed no significant difference ($\chi^2=4.026$; $df=3$). This proves that the window glass and nails were causing much of the difference. The relatively lower window glass and higher nail frequencies are understandable when it is remembered that most of the material in Stratum B originated further upslope. A 1919 photograph (figure 34) shows a frame outbuilding north of the Old School. Nails are often deposited when a structure is dismantled. It is possible that the artifacts, including the nails, came from this structure. Several large artifacts, including a 12-1/2 inch by 9 inch ferrous machine plate, an iron shoe form, industrial type sewing machine pedal, and two or three whole bricks were found in Level 3, a portion of Stratum B.

The relatively low window glass frequency is a little more difficult to explain. Perhaps the flat pieces of glass do not move downslope as readily as the bulkier, elongated nails, or perhaps the outbuilding did not have many windows. The glass that is found in Stratum B cannot be attributed to the Old School since the only window on the north side of the building is above the stair casing (figure 35). Broken glass from that window would have been deflected west by the slope of the stair casing roof.

Stratum C is quite obviously fill material. Stones in the matrix are oriented in many directions; pockets of sand, gravel, and humic materials abound in no meaningful pattern. It is denser at the top than the bottom of the deposit, implying that it was not compacted when brought to the



Figure 35: 1981 photograph of the north side of the Old School. Looking south (Cloyd).

site. Later foot traffic on the surface compacted the upper portion of the deposit.

Stratum C covers the base and much of the foundation pier for the stair enclosure. No builders trench is evident through Stratum C, although the fill does dip in a trench through Stratum D in the immediate vicinity of the pier foundation (figure 31). This indicates that the fill was placed on top of the Stratum D sand after the pier was put in place. Evidence from all other test units around the Old School confirm that several centimeters of fill were added to the site after the building was constructed. It should be noted, also that an aqua colored glass bottle sherd recovered from Level 4 (and probably associated with the Stratum C fill) mends with a sherd found in Stratum B of unit N0W2. This indicates that the site filling extended at least 9 meters south of the Old School.

Since the Stratum C fill was brought from some other, unknown location, detailed artifact analysis would prove to be an unproductive use of time.

Stratum D is an undisturbed beach sand deposit. It quite obviously predates the Old School, and can therefore be considered the 19th century deposit in the unit. Artifact frequency was fairly low in Stratum D: too low for chi square tests. Relative frequency analysis is instructive, however. The extremely high relative nail frequency (45.8% of the assemblage) probably resulted from either the initial construction of the Old School or the 1908 stairway construction. The very low window glass frequency (4.2%) implies that there were no structures in the immediate vicinity of the unit before the Old School was built.

Stratum E is a culturally sterile beach gravel. It contained no artifacts.

West Side

The unit named N14W5 was placed outside the approximate midpoint of the west wall of the Old School. It was situated below the north window on that wall. This window had originally been a door which was later converted to a window. Apparently this change occurred in 1922 when the Russian Orthodox Church rented the structure to the Sitka Educational Bureau. In March, 1922, Bishop Dashkevich in New York wrote to Aleksandr Pantaleev, head priest in Sitka:

It would not be so good for them to be entering the school building from the side of our interior yard. I would suggest that the interested parties should prefer to have an entrance to the other [east] side of the American public school (Dashkevich 1922).

The test excavation was attempted in this area to see if the change from a door to a window could be documented archeologically, thereby providing another dateable horizon for interpretation of archeological strata.

As can be seen in figure 36, all layers were higher on the west than on the east end of the excavation unit. Because the unit was excavated in arbitrary 10 cm thick levels, this sloping characteristic caused artifacts from a single stratum to be distributed through several levels. In this particular unit, it is almost impossible to determine which artifact assemblage is characteristic of a given stratum. Therefore, no statistical tests were conducted on the artifact material. It does appear that most of Level 2 is in Stratum A, most of Levels 3 and 4 are in Stratum B, and most of Level 5 is in Stratum C. Differences in relative frequency of certain classes of artifacts will be mentioned here, but dating of deposits by artifact content was impossible due to the method of recovery.

Seven strata were uncovered in this test excavation (figure 36). The uppermost layer, Stratum A, consisted of sand and gravel, quite obviously deposited recently before the investigations were undertaken. It was the remnants of material stockpiled prior to renovations (Conrad 1984). A piece of visqueen underlay a portion of this layer. 22.3 percent of the artifact assemblage in Level 2 is in the Beverage Class, and most of those are from brown beer bottle glass (figure 37). This distribution appears to be typical of recent 20th century deposits around the Bishop's House site. 35.5 percent of the deposit is window glass, perhaps indicating that broken glass was removed from the window before NPS covered it with plywood. This no doubt occurred after 1975.

Stratum B is sandy loam fill mixed with lenses of sand and loam. The upper portion of the deposit appears to have accumulated naturally; given the pockets of sand and skewed orientation of stones, it appears that the lower portion was probably imported from some other location. Since much of the layer was originally deposited in some other location, distributional analysis of the artifacts will give little meaningful information on the activities occurring at the school. However, it should be noted that fully 56.6 percent of the artifacts in Levels 3 and 4, which comprise the majority of the stratum, is window glass. 631 sherds of window glass were recovered from these two layers. It is most likely that the majority of this glass was deposited in situ from the window above the excavation unit.

Stratum C is a sandy layer which accumulated by natural means next to the building. The low window glass frequency (10.2%) and high nail frequency (21.4%) in Level 5 suggest that this layer was accumulating during the period of time before the door was changed to a window in 1922. The nails were likely lost when the framing for the door was removed and the window was constructed.

Stratum D is a sandy loam with randomly oriented pockets of sand, again providing evidence that it originated elsewhere than on site. It is probably fill brought in to bring the ground surface up after the Old School was constructed, and as such correlates to Stratum C in N20W1 north of the building. In figure 36 it can be seen that strata below Stratum D have been penetrated by a builders trench next to the building, a posthole about 30 cm square along the north wall of the excavation unit, and an iron stake in the south wall of the unit. These features all date to the construction of the Old School as they precede the Stratum D fill put on the site immediately after construction. The

NORTH PROFILE

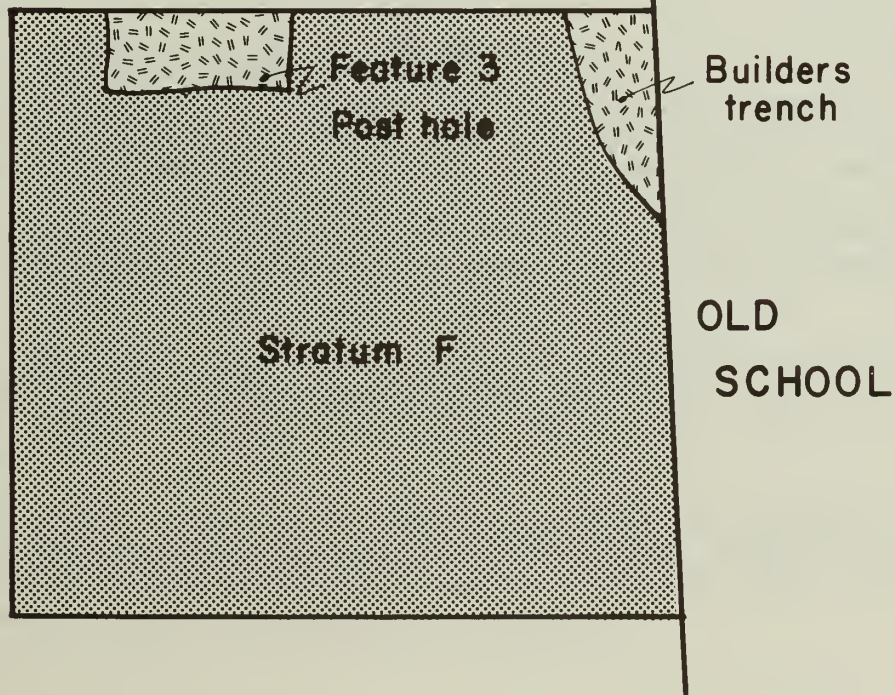
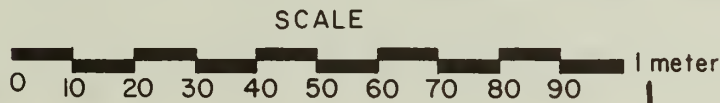
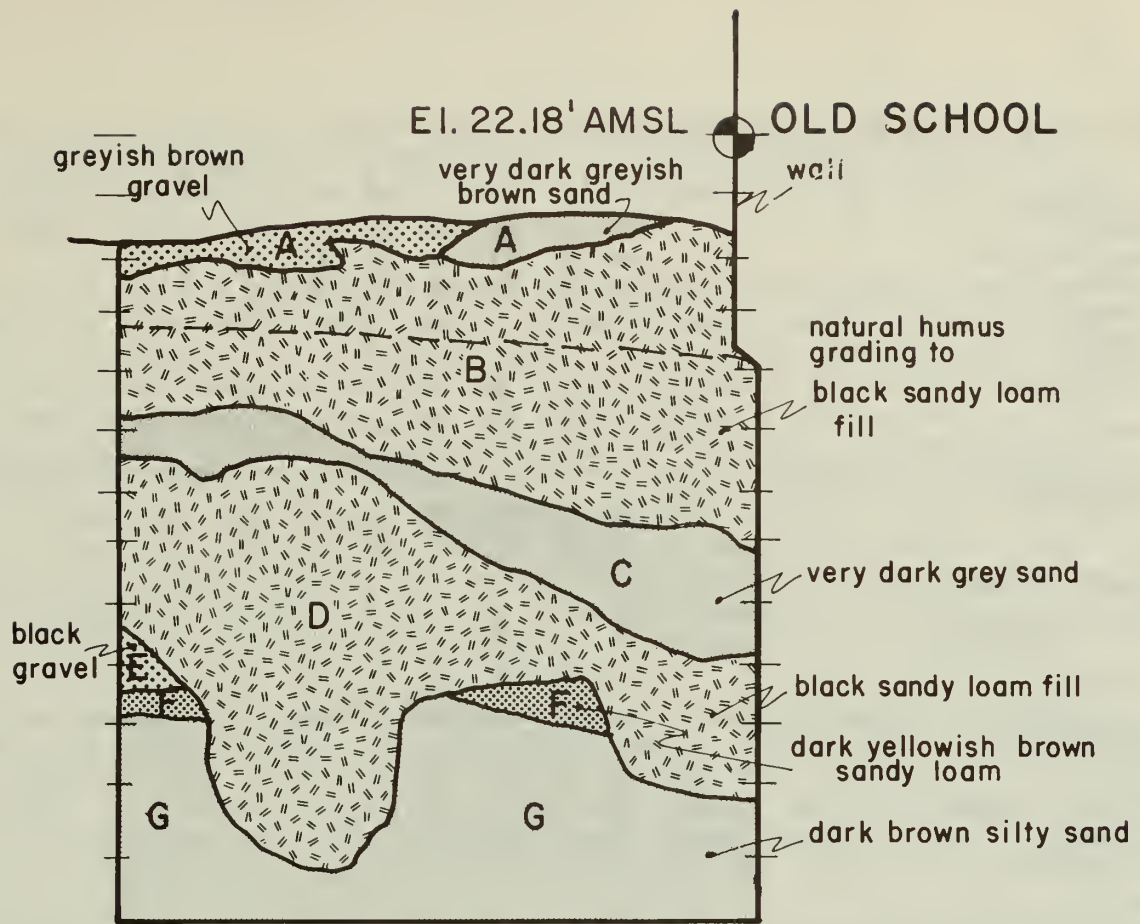


Figure 36: North profile and plan of NI4W5.

Figure 37: Artifact Groups and Classes in unit N14W5.

	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Domestic Artifacts</u>													
Food storage	-	31	68	62	14	18	7	6	1	-	-	-	207
Beverage containers	-	64	38	19	11	17	25	6	5	-	1	-	186
Food serving	1	21	30	25	15	25	25	8	3	2	-	1	156
Food remains	-	8	6	2	1	-	-	2	-	-	-	-	19
Pharmaceutical	-	-	4	1	2	2	1	3	-	-	-	-	13
Furnishings	-	-	6	9	-	-	-	-	-	-	-	-	15
Housekeeping	-	-	1	8	9	2	-	-	-	-	-	-	20
Total Domestic	1	124	153	126	52	64	58	25	9	2	1	1	616
<u>Structural Artifacts</u>													
Window glass	-	102	364	267	10	55	44	15	9	2	-	-	868
Nails	-	16	80	34	21	14	11	2	1	-	-	-	179
Materials	-	14	19	12	1	2	1	-	-	-	-	-	49
Maintenance and repair	-	-	-	-	-	-	1	-	-	-	-	-	1
Utilities	-	4	15	1	3	2	-	-	3	-	-	-	28
Hardware, miscellaneous	-	8	7	8	1	-	1	-	-	-	-	-	25
Total Structural	-	144	485	322	36	73	58	17	13	2	-	-	1150
<u>Personal Artifacts</u>													
Adornment	-	3	3	1	1	-	2	-	1	-	-	-	11
Clothing	-	3	7	-	1	-	-	-	-	-	-	-	11
Grooming and hygiene	-	2	2	-	1	-	-	-	-	-	-	-	5
Leisure time	-	8	1	3	1	-	-	-	-	-	-	-	13
Other personal	-	1	1	-	-	-	1	-	-	-	-	-	3
Total Personal	17	14	4	4	-	3	-	1	-	-	-	-	43
<u>Activities Artifacts</u>													
Communication	-	-	1	-	1	-	-	-	-	-	-	-	2
Education	-	-	2	1	3	-	-	-	-	-	-	-	6
Machinery	-	-	1	2	-	-	-	-	-	-	-	-	3
Storage	-	-	1	1	1	-	-	-	-	-	-	-	3
Transportation	-	1	1	1	1	-	-	-	-	-	-	-	4
Total Activities	-	1	6	5	6	-	-	-	-	-	-	-	18
TOTAL ARTIFACTS	1	286	658	457	98	137	119	42	23	4	1	1	1827

builders trench aided in construction of the building. The posthole may have helped to support a scaffolding. It is also possible that it held a fence post pre-dating the Old School. It appears that Stratum D dates from 1896 to 1922.

Strata E, F, and G consist of gravel overlaying a thin sandy loam layer on top of a silty sterile beach sand. These layers roughly correspond to Levels 9 through 12. In those four levels, only 29 artifacts were recovered; field notes show that the two items found in Levels 11 and 12 were recovered from the posthole and that Stratum G was entirely void of artifacts, dating it before human occupation of the site. Levels 9 and 10 contained late 19th century items such as rubber insulated copper wire and an electrical plug tang, indicating that the builders trench next to the building introduced later dating artifacts into those layers. As a result of this artifact mixing and extremely low artifact counts, as well as lack of diagnostic material, little information is available to speculate on activities taking place on the site prior to construction of the Old School.

The only artifact of interest found in this test was a Russian kopek, a copper coin approximately the size of a quarter (figure 38). The date was illegible. Its occurrence is unusual in that most currency in Sitka was paper or leather during most of the Russian period. Coins were hard to come by, and all purchases were made through the Russian American Company which issued its own script for use by employees.

Trade with other nationalities was conducted with goods and furs; if money was required for foreign exchanges, it usually occurred in another currency (Dmytryshyn and Crownhart-Vaughn 1974: 98). The kopek was found in Level 7, which contains Strata B, C, and D. Both B and D are fill indicating that the coin probably originated in some other location.

East Side

N15E1.5 was excavated near the midpoint of the east wall of the Old School building (figure 1). Originally this unit was not planned since the NPS property line corresponds to the east wall of the building. However, after excavation of N8W0 on the south side of the building, it was obvious that a previously unknown feature was present under the Old School. This unit was dug in an attempt to determine how far north the feature extended. Permission to excavate on the public school property was attained by the National Park Service before excavation began.

In order to save time (this unit was dug in the last three days of the field session) the unit was excavated in 20 cm levels rather than 10 cm levels. Excavation extended one meter deep; the feature was not encountered.

Five culture bearing strata were uncovered, roughly corresponding to the five levels allowing statistical analysis of the deposits (figure 39). Level 5 contained only 2 artifacts (both window glass sherds); these items were added to those in Level 4 for statistical calculations.



a



b

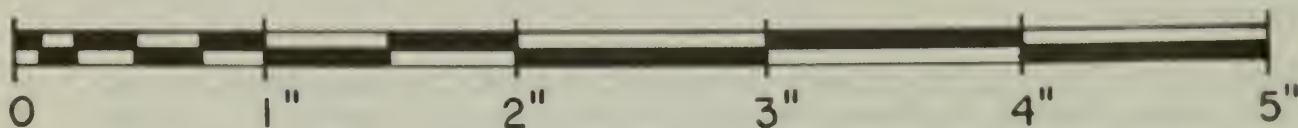


Figure 38: Artifacts from the Old School: a) Russian Kopek b) mineral water bottle sherd with Cyrillic letters.

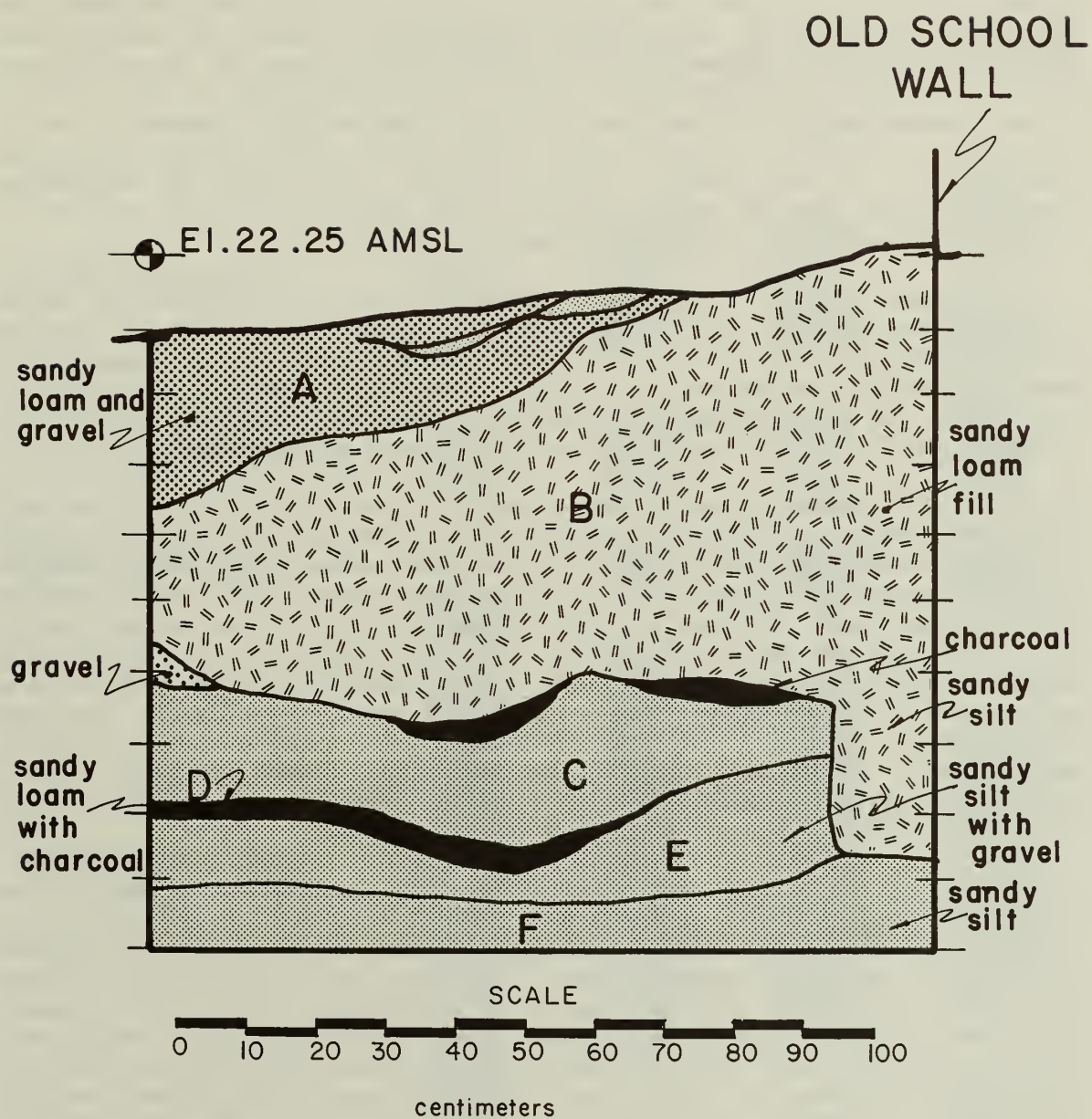


Figure 39: South profile of unit N15E1.5.

Figure 40 shows the relative frequencies of the statistical classes of artifacts found in N15E1.5 (see figure 41 for a listing of the groups and classes). A chi square test of all classes in the four assemblages indicates that there is a significant differences between the assemblages ($\chi^2=286.719$, $df=15$) suggesting a change in area function through time. Because window glass comprises such a large percentage of the artifacts in each assemblage (the frequency ranges from 34.6% in Levels 4 and 5, to 72.7% in Level 1), this class of artifacts was deleted from the calculation. It was thought that perhaps the trend of increasing frequencies of window glass through time was causing the apparently decreasing frequencies of other classes of artifacts.

A chi square test of all classes except window glass in the four levels indicates that there is still a significant difference in assemblages through time ($\chi^2=135.578$, $df=12$). The rather large incidence of window glass does not affect the relative frequencies of other classes through time. Therefore, we can assume that change in area function was causing the change in artifact distributions as each stratum was deposited.

Stratum A is quite obviously very recent sandy loam and gravel deposits associated with the asphalt sidewalk that ran between the Old School and the public school building to the east. (This sidewalk has been replaced with a concrete one since 1981). It contained such very recent items as aluminum pull tabs, a piece of bubble gum, a Levi Strauss leather patch, and various items made of plastic. The extremely high window glass frequency (72.7%) was probably caused by abandonment of the building before NPS placed protective plywood covers over the windows. The east side of the building is the most exposed to public access, and the public school ground immediately adjoins the property. There is little doubt in this investigator's opinion that the school children broke windows in the building once the tenement occupants moved out.

Children's presence near the building in recent times is also seen in the high frequency of Other class artifacts. Of the 108 Other artifacts in Level 1, 16 are most probably associated with school children (marbles, phonograph record fragments, toys, crayons, pencil parts and bubble gum) and another 11 possibly could be attributed to the young people (Levi jeans patch, bobby pin, penny, political button, sun glass lens, Christmas tree tinsel, and the three center fired .22 casings--remember the broken windows?). Even among the named statistical classes, we find items which could be attributed to children for there are fragments of jelly jars, a Skippy peanut butter jar, a Nesbitt soda bottle, and 11 aluminum can pull tabs. Possibly as many as 60 items, or 5% of the assemblage can be attributed to the known presence of children walking along the east side of the Old School. This is not counting, of course, the broken window glass which may very likely be attributable to the more mischievous of the youthful set at Sitka.

Five percent of the assemblage seems unusually large to this investigator. Personal items, which comprise much of the children associated artifacts, tend to be small and complete (e.g., pennies, pencils, marbles). The other artifact classes, however, tend to be made up of artifacts that are mostly fragmented: bottles, jars, cans, shattered windows. Were we counting the minimum number of bottles, jars, dishes and window panes

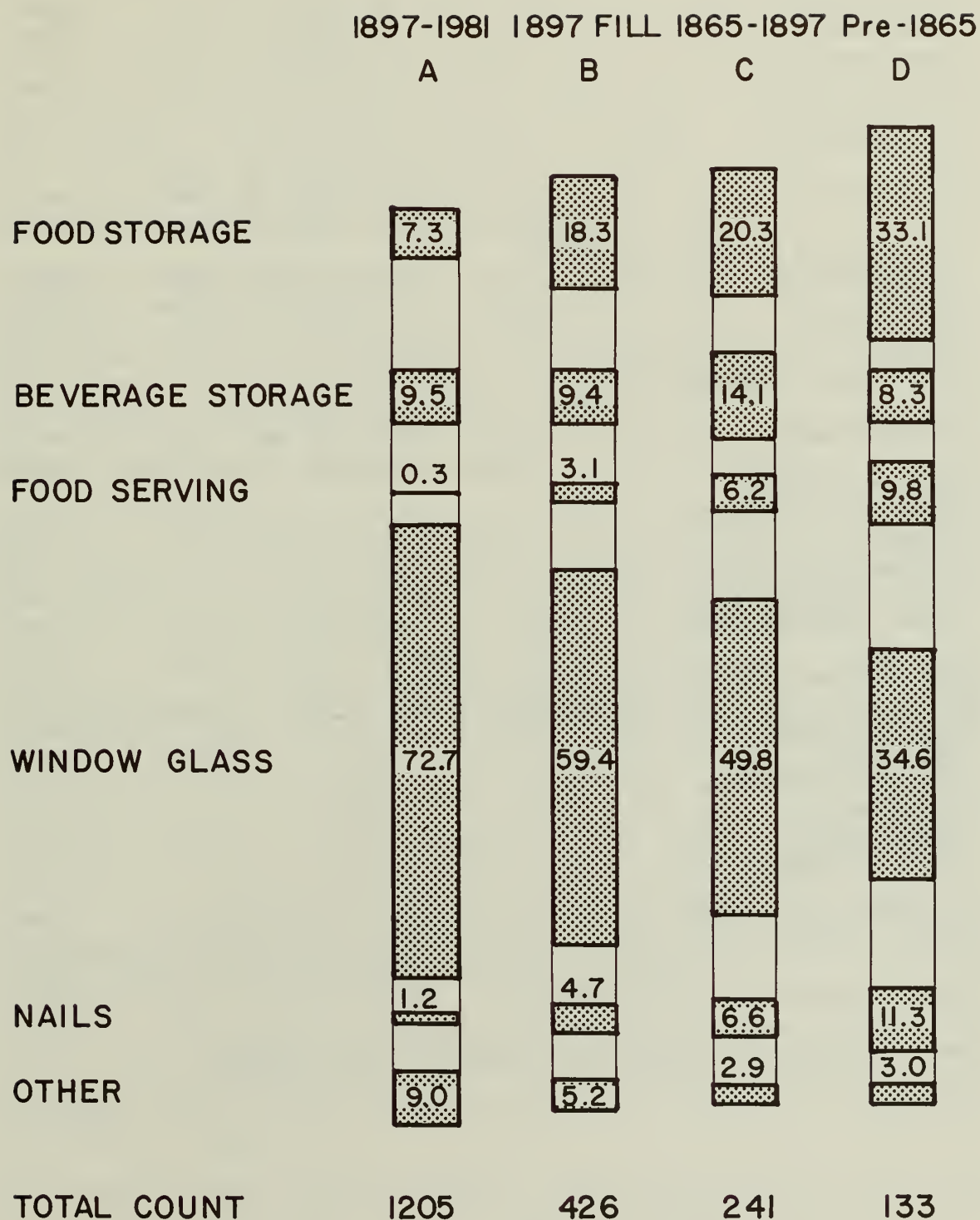


Figure 40: Relative frequency distribution of statistical classes in unit N15 E1.5.

	L.1	L.2	L.3	L.4	L.5	Total
<u>Domestic Artifacts</u>						
Food storage	88	78	49	44	-	259
Beverages	115	40	34	11	-	200
Food serving	4	13	15	13	-	45
Food remains	16	1	-	1	-	18
Pharmaceutical	12	-	-	-	-	12
Housekeeping	2	-	-	-	-	2
Total Domestic	237	132	98	69	-	536
<u>Structural and Hardware Artifacts</u>						
Window glass	876	253	120	44	2	1295
Nails	14	20	16	15	-	65
Materials	36	10	4	-	-	50
Utilities	3	4	1	-	-	8
Hardware, miscellaneous	12	1	-	-	-	13
Total Structural	941	288	141	59	2	1431
<u>Personal Artifacts</u>						
Arms	3	1	-	-	-	4
Clothing	3	1	1	1	-	6
Grooming and hygiene	1	-	-	-	-	1
Leisure time	7	1	-	-	-	8
Other personal items	3	1	-	-	-	4
Total Personal Artifacts	17	4	1	1	-	23
<u>Activities Artifacts</u>						
Education	9	1	1	-	-	11
Holiday Celebration	1	-	-	-	-	1
Machinery	-	1	-	-	-	1
Metal Working	-	-	-	1	-	1
Transportation	-	-	-	1	-	1
Total Activities Artifacts	10	2	1	2	-	15
TOTAL CLASSIFIABLE ARTIFACTS	1205	426	241	131	2	2005

Figure 41: Artifact Groups and Classes in unit N15E1.5.

found in this unit, the relative frequency of children-associated artifacts would be much higher than five percent.

Stratum B is a fill deposit of sandy loam with silt and sand lenses. It corresponds to the fill found in Stratum C of N20W1 and Stratum D in N14W5. Stratum B penetrates as deep as 87 cm in the southwest corner of the unit (figure 39) where it fills a builders trench dug for one of the pier foundations on the east side of the building. It appears that the ground level was raised approximately 55 cm after the Old School was built. Discussion of artifact frequencies in this stratum would yield little meaningful information regarding the Old School as it consists of material brought in from some other, unknown location.

Stratum C consists of a lighter sandy silt overlaid in some places by a thin gravel and charcoal layer. The deposit appears to have accumulated naturally. Stratum D is a very thin sandy loam which separates C from the gravelly sandy silt of Stratum E. It is apparent from the field notes that Stratum E is culturally sterile; artifacts found in Level 5 are attributable to either Stratum D where it dips down into Level 5 along the south wall of the unit, or to the intrusion caused by the pier foundation builders trench in the southwest corner.

Stratum C appeared first in the lower portion of Level 3. In order to determine if the artifact frequencies in Stratum C significantly affected the distribution of artifact frequencies in Level 3, Levels 2 and 3 were compared with a chi square test. It was found there was a significant difference between assemblages in Levels 2 and 3 ($\chi^2=13.415$, $df=5$). However, it appeared the difference was caused by the window glass frequencies. The calculation showed that there was indeed no significant difference between Level 2 and 3 assemblages when window glass was eliminated ($\chi^2=6.432$, $df=4$). The relatively high window glass frequency in Level 2 compared to Level 3 is no doubt due to the intrusion of Stratum A into Level 2 (figure 39). As discussed before, the extremely high incidence of window glass in Stratum A is a fairly recent phenomena no doubt occasioned by abandonment of the building. Elimination of window glass from calculations, shows that all other classes of artifacts are found in frequencies that do not vary significantly from Level 3 to Level 2. For the purposes of comparison, then, these two levels can be combined, and dismissed from the analysis, as Stratum B, which makes up the two levels, is fill from another, unknown source.

Level 4 contains the three pre-1896 strata found at this location. All artifacts are typically 19th century, but none are diagnostic of a particular portion of the century. Artifact density is fairly low, suggesting that little activity was taking place in the vicinity before the Old School was built.

From comparison with soil types found in the excavations at the south end of the building, discussed below, it is possible to suggest that Stratum C accumulated between about 1865 to 1896. Stratum D corresponds to a layer covering the trash pit in Feature 12 (p. 90) and probably dates from the early to mid 1860's. Stratum E predates the 1860's.

South Side

Excavation unit N8W2 was placed near the center of the south wall of the Old School (figure 1). During the course of the excavation, a significant cluster of artifacts was exposed along the east wall of the excavation unit. This prompted excavation of a 50 cm by 50 cm unit to the east of N8W2, labelled N8.5W1.5. Upon completion of this investigation, it was realized that a significant feature containing 19th century artifacts had been encountered. In order to better understand the extent of the feature, two more units were opened to the east: N8W1 consisted of the remaining three quarters of a one by one meter square left after N8.5W1.5 was excavated, and N8W0 lay to the east of that.

The following discussion will focus on N8W2. The deposits found in this unit are comparable to those found in the ones on the other three sides of the building (N20W1, N14W5, and N15E1.5). As such, most of the material culture relates to the Old School and the fill used to bring the ground surface up around the building.

Six basic deposits were uncovered during the excavation of N8W2 (figure 42). The uppermost 30 cm consists primarily of a very dark colored humus loam, which appears to have accumulated naturally. While a portion of Stratum B, a lower deposit, extends up into the upper three levels, artifact frequencies within those levels do not appear to have been greatly skewed by the lower artifacts. Feature X is an intrusion caused by the construction or repair of the foundation pier shown in the north profile of the unit (figure 42). This intrusion caused mixing of all lower deposits plus the introduction of artifacts contemporary to the time the intrusion occurred. The mixing in effect homogenized the varying frequencies of artifact types that would have normally signified a changing of activities taking place in that location. This homogenization creates a sort of background noise that is present in all levels analysed since it is present in all levels. For the purpose of comparing one level to another, and one deposit to another, this background noise can be ignored, since it is assumed that it introduces the same amount of skewing to each level.*

In studying the stratigraphic profiles, it was assumed that Levels 1 through 3 could be combined as representative of activities taking place during the time the humus accumulated. However, an examination of the relative frequencies of the statistical artifact classes showed that the three levels had significantly different distributions; a chi square test is not even necessary to see the very substantial difference between the Level 1 artifacts and those in Level 2 (figure 43). It would appear that the window glass frequency accounts for the wide variation between the other types since these sherds account for such large percentages of the three assemblages, and vary so greatly from level to level. Elimination of the window glass from a chi square test of the three levels yields a value

*However, the artifact assemblages cannot be compared to other units because of this mixing.

OLD SCHOOL WALL

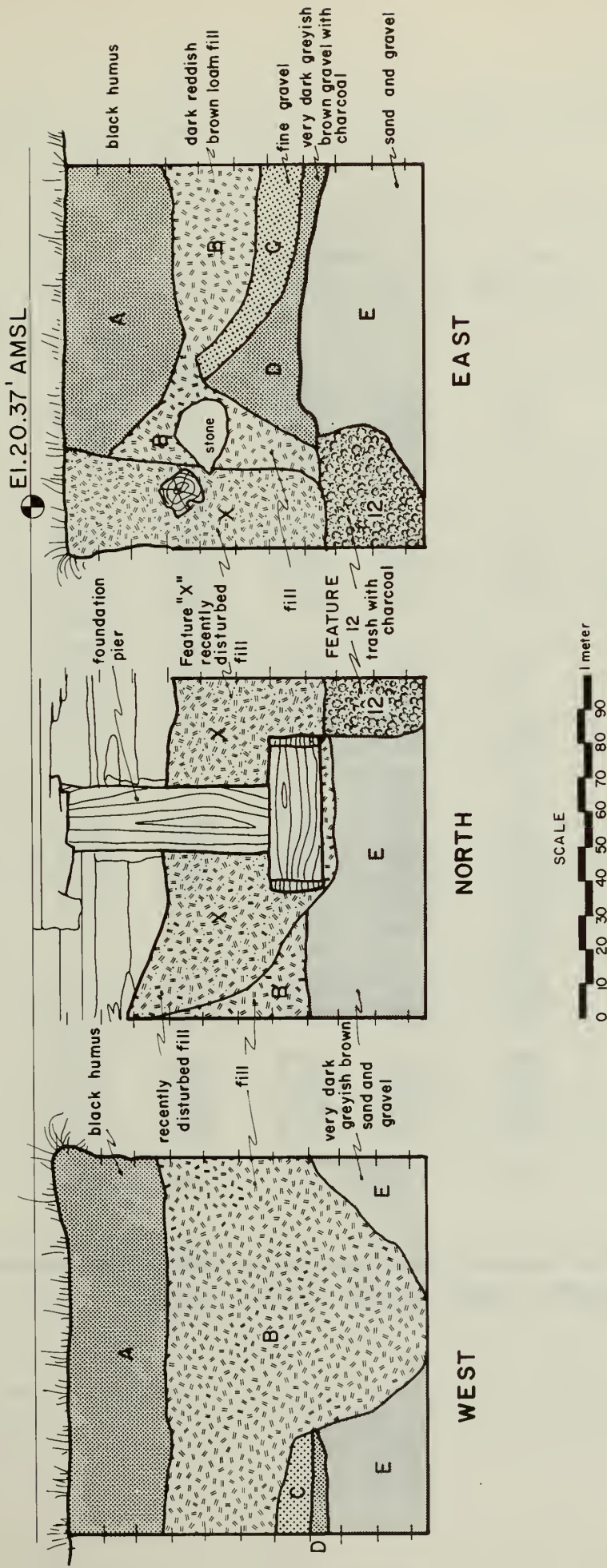


Figure 42: West, north, and east profiles of unit N8W2.

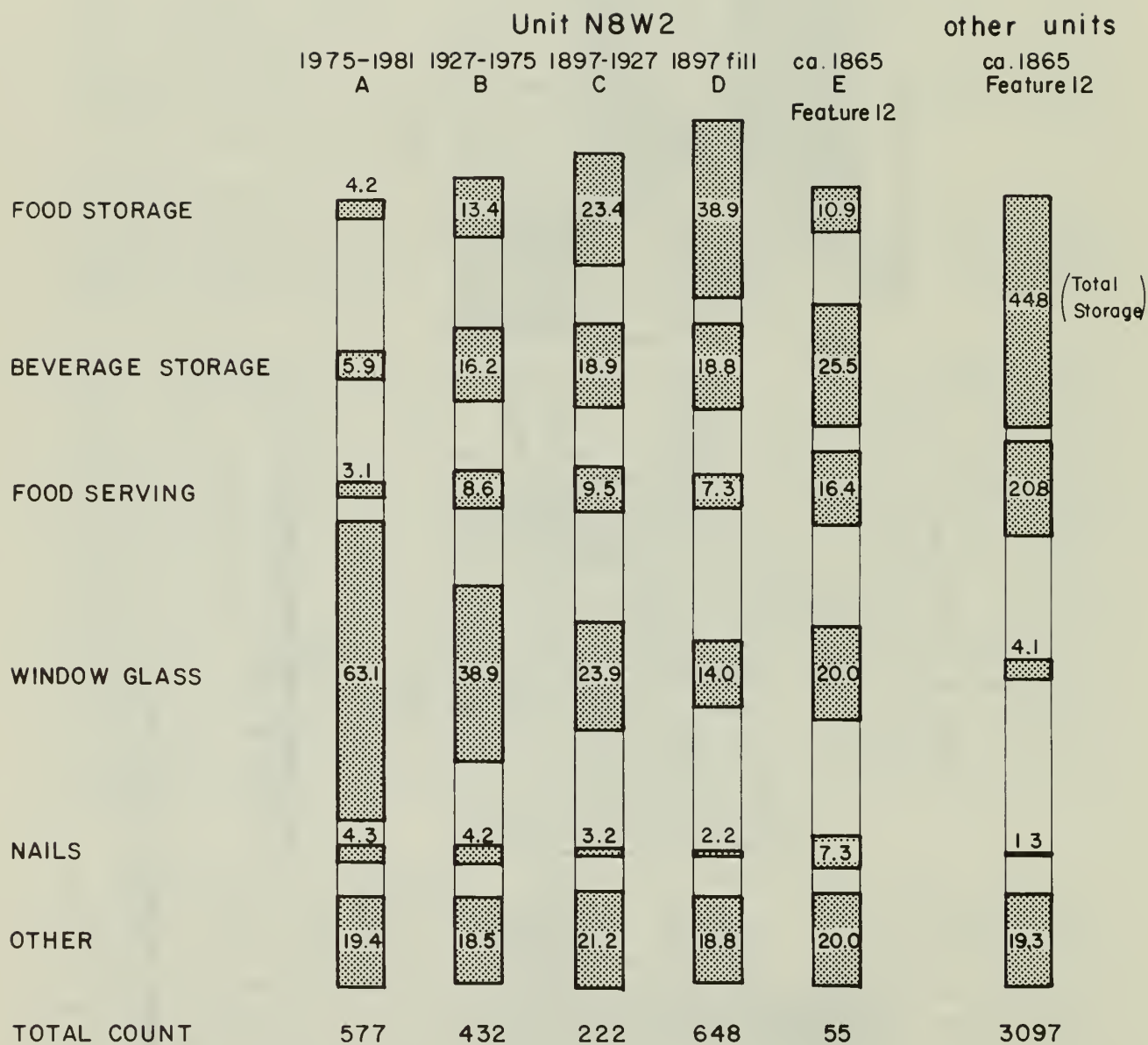


Figure 43: Relative frequency distribution of statistical classes from unit N8W2, N8W1, N8.5W1.5 and N8W0.

of 55.180 (df=8). This indicates there is still a significant and substantial difference between the three assemblages, even when window glass is eliminated from consideration.

Further tests show that there is no significant difference between assemblages in Levels 2 and 3 when window glass is eliminated ($\chi^2=5.290$, df=4), but that there is a substantial difference between Levels 1 and 2 ($\chi^2=34.282$, df=4). Successive chi square tests indicate that, in addition to there being a substantially greater percentage of window glass in Level 1 than in Level 2, there is a much larger frequency of Other artifacts, and significantly greater portions of Nails in the top level ($\chi^2=10.693$ df=3). There is no significant difference between Storage, Beverage, and Food Serving classes ($\chi^2=0.309$, df=2).

An examination of figure 44 indicates where the greatest variation in activities appears to have occurred between Levels 1 and 2. In Level 1 fully 58.9% of the Other artifacts are Structural Materials: fragments of window glazing, and wood and asphalt siding. Of those, only the window glazing is present in Level 2, and it is in a much smaller frequency (20.0% of the Other assemblage). In Level 2, 51.3% of the assemblage is from the Medical Class and 27.3% is in Bulk Storage. The fragments of clear tincture bottles and green glass carboys that comprise these two classes are common artifacts found in the nineteenth century feature, which was disturbed by the Feature X intrusion. We can surmise, therefore, that the Medical and Bulk Storage artifacts found in Levels 1 and 2 do not relate to activities taking place during the formation of Stratum A except to reflect the late intrusion of Feature X.

The major differences between Levels 1 and 2, then, are in the Window Glass, Structural Materials, and Nails Classes. The relative, as well as absolute, frequencies of each of these classes is much greater in the more recent level. It seems obvious to this investigator that the structure and lack of people occupying it contributed greatly to the change in artifact distribution. Windows would be more susceptible to vandalism, siding from the structure would tend to deteriorate and fall to the ground. The subsequent minimal repairs effected by the National Park Service after acquisition in 1975 would result in higher nail and window glazing frequencies. While the method in which soil was being formed or accumulated south of the building did not change during formation of Stratum A, it is quite obvious that the abandonment of the Old School as a tenement structure and later maintenance by NPS resulted in a change in deposition of artifacts. For practical purposes Level 1 may be regarded as an NPS deposit.

When the artifact assemblages from Levels 2 and 3 were compared in a chi square test, it was found that there was a significant difference between the two assemblages ($\chi^2=20.391$, df=5). Eliminating the Window Glass from the calculation yields a value of 5.290 (df=4), indicating that the window glass is the only class which varies from the earliest level of Stratum A to the middle one. Sometime between the time when the school was built and when it was abandoned, a change in the rate at which windows were broken occurred. A review of the 20th century photographs of the building suggest two reasons for this change.

	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	X6	Total
<u>Domestic Artifacts</u>										
Food storage	24	58	52	188	29	35	5	1	-	392
Beverage containers	34	70	42	62	25	35	7	7	2	284
Food serving	18	37	21	21	19	18	8	1	3	146
Food remains	6	1	6	2	-	3	1	-	-	19
Furniture	1	-	-	-	-	-	-	-	-	1
Total Domestic	83	166	121	273	73	91	21	9	5	842
<u>Personal Artifacts</u>										
Arms	1	-	-	-	-	-	-	-	-	1
Clothing	1	-	-	-	-	1	-	-	-	2
Grooming and hygiene	1	-	-	2	-	-	-	-	-	3
Leisure time	6	-	-	-	-	-	-	-	-	7
Total Personal	9	-	-	2	-	1	1	-	-	13
<u>Structural Artifacts</u>										
Window glass	364	168	53	38	24	29	9	2	5	692
Nails	25	19	7	5	4	5	4	-	1	70
Structural materials	66	16	3	-	-	-	-	-	3	88
Utilities	3	-	-	-	-	-	-	-	-	3
Hardware	2	-	-	-	-	-	-	-	-	13
Total Structural Artifacts	460	203	63	43	28	34	13	2	9	855
<u>Activities</u>										
Communication	3	-	-	-	-	-	-	-	-	3
Education	3	-	-	1	-	-	-	-	-	4
Machinery	-	-	-	-	1	-	-	-	-	1
Medical	11	41	25	28	18	9	5	-	1	138
Storage, bulk	8	22	13	15	8	3	3	1	2	75
Total Activities	25	63	38	44	27	12	8	1	3	221
TOTAL CLASSIFIABLE ARTIFACTS	577	432	222	362	128	138	43	12	17	1931

Figure 44: Artifact Groups and Classes in unit N8W2.

An early 1930's photograph (Cloyd 1982: 169) is the last time that a fence can be seen both along the east side and the front of the Russian Orthodox Church property. From as early as 1922, an effort had been made by the church to limit public school children access to the yard. In March of that year, Bishop Dashevich wrote,

It would not be so good for them [the public school children] to be entering the school building from the side of our interior yard (Dashkevich 1922).

By 1943, however, we see that the fence across the front of the yard is gone (figure 45). It appears that during the late 1930's, possibly as a result of the hard economic times, the fence used to segregate the Church property disappeared. This increased access to the front of the Old School no doubt contributed to the breaking of its southern windows.

A contributing factor in the increase of window glass sherds in Level 2 may have been the construction of the public school building seen to the east of the Old School in figure 45. The author assumes other events that could have caused windows to break would remain constant through time. Such events as violent storms, dropped sashes, or casual breakage by people working near the windows probably would not account for the dramatic increase in frequency from Level 3 to Level 2. The increase in the number of children near the Old School after the public school was built in 1927 may have contributed to the increased frequency of window glass. The author does not mean to imply that only children break windows or that the breakage was deliberate, but that the nature of their play in the school yard may have contributed to the amount of windows broken.

Whether the lack of fencing or the presence of the public school, or both factors, contributed to the breaking of windows in the Old School, it is apparent that by the 1930's the structure was falling into bad disrepair by the increased frequency of window glass in the middle level of Stratum A. All other artifact classes appear in essentially the same relative frequency from 1897 to the time the building was abandoned. Note also that the absolute frequency (i.e. density) of artifacts also increased dramatically in the middle of Stratum A.

Feature X is a very late intrusion (figure 42). The author suspects that this disturbance took place after NPS acquired the property. Tincture bottle and carboy glass fragments which were common in Feature 12, were found in Level 1 in the vicinity of this disturbed area. Since the disturbance appears to be limited to the area immediately adjacent to the foundation pier, this investigator assumes that maintenance or architectural personnel dug around the pier to inspect it for soundness.

Stratum B is a mixed sand, gravel and loam fill. It corresponds to Stratum D in N14W5, Stratum C in N20W1, and Stratum B in N15E1.5. It is the fill that was brought to the site immediately after the Old School was constructed in 1897. The way in which Stratum B fills a cut through Strata C and D in the east profile and a trench in the west profile (figure 42) indicates that some digging occurred in this location when the school was built. This trench is no doubt the undisturbed portion of the original builders trench for the foundation pier.



Figure 45: Photograph of Old School with ca. 1927 Lincoln Street Gothic style public school at right. Looking northeast (Sitka National Historical Park).

Levels 4 through 6 comprise the majority of Stratum B. In setting up a chi square test for the three levels it was immediately apparent that Level 4 had an abnormally high Food Storage frequency: fully 51.9% of the assemblage. Inspection of the inventory revealed that 136 of the 188 items in the class were tin can fragments, compared to none in Level 5 and 6 fragments in Level 6. The 136 fragments possibly came from a single can in view of the diametric evidence from the other two levels. Since the presence of these fragments represents an apparently unusual or unique event, they shall be eliminated from the calculation.

In comparing Levels 4, 5 and 6, and eliminating the skewing factor of the tin can fragments, a chi square test yields a value of 17.107 (df=10). This value indicates there is no significant difference (except for the tin can fragments) between the assemblages in the three levels. What is interesting about this statistic is that much of Level 6 also includes Stratum C; the artifacts in that stratum do not appear to affect the relative frequencies of artifacts in Stratum B.

Stratum C is a fine sand and gravel layer. It appears to correlate with Stratum C in N15E1.5 and Stratum E in N14W5. There is no comparable layer on the north side of the building. In excavations conducted under the building in 1983, where strata were dug separately, this layer was found to be almost entirely devoid of artifacts. That may account for the fact that Level 6 correlated so well to other levels in which Stratum B was found; Stratum C probably had little or no impact on the artifact distributions found in Level 6.

The last culture bearing stratum is Stratum D, a very dark greyish brown gravel loam with some charcoal lenses. Since the underlying sand of Stratum F is culturally sterile, and Stratum C above has little or no cultural material, it is quite evident that the artifacts in Levels 7 and 8 are the earliest deposits on the site, and date to the earliest occupation of the Bishop's House and surrounding buildings.

Feature 12

During the excavation of N8W2 on the south side of the Old School, a cluster of artifacts were recovered from the northeast corner of the unit, below the bottom of the foundation pier. Near the bottom of the unit, the base of a mineral water bottle protruded from the unit's east wall. Upon completion of recording, the excavator was given permission to remove the mineral water bottle. In the cavity formed by its removal, a dense cluster of artifacts (ceramics and bottle glass) was observed in a matrix of charcoal and dark colored humus unlike the fill found in N8W2. In order to recover the artifacts in a more controlled situation, a 50 cm by 50 cm square unit was opened at N8.5W1.5. Excavation was done in arbitrary 20 cm levels.

In the lower 60 cm of the unit, 1249 artifacts were recovered, a density of 4996 artifacts per square meter.* This is 2.5 times the density of the

next most dense unit, N15E1.5 (with 2005 artifacts per square meter) and is 2.6 times the density of N8W2 just next to it. The N8W2 assemblage was 33.0% window glass; N15E.15 had 64.6% window glass. In the newly excavated 50 cm square unit, only 4.6% of the assemblage was window glass. Needless to say, it appeared that the excavator had encountered a significantly different deposit by simply removing a mineral water bottle. To add to the excitement, a ceramic sherd bearing Cyrillic script was recovered (figure 37).

Although the project was by then in its last week of field work, all new efforts were directed towards deliniating the feature. N8W1, the remaining three quarters of the meter square unit started by N8.5W1.5, was excavated, followed by the next unit east, N8W0. The eastern limit of the feature was found the day before the field season ended.

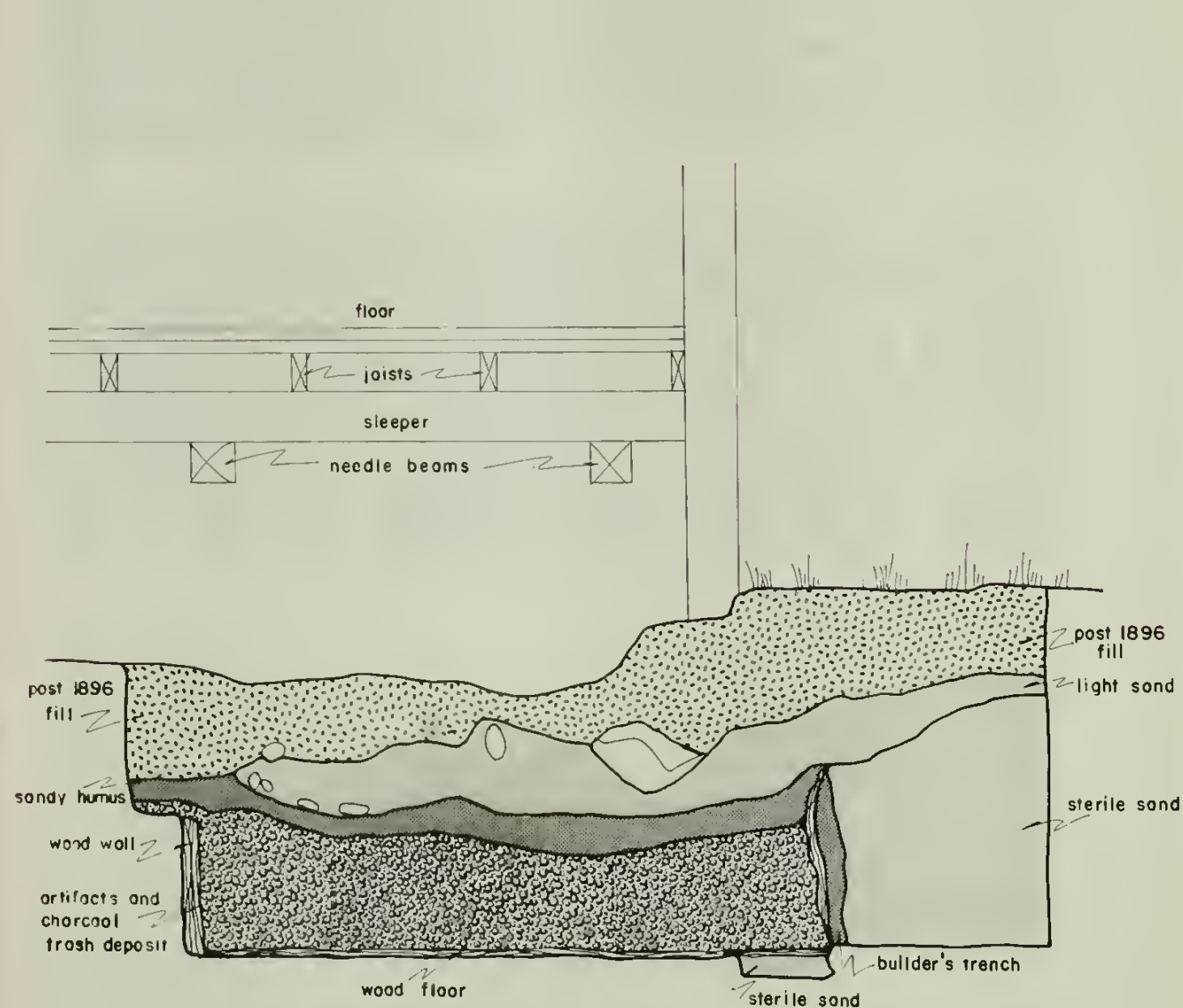
The newly christened Feature 12 appeared to be a wood-lined pit which began about 60 cm below the ground surface and extended to 115 cm (figure 46). It extended 27 cm south of the south wall of the Old School, and was 2.05 meters wide (6 feet, 8-3/4 inches). Its proximity to 1 sazhen (7 feet) in length was too close to be ignored. In that space, 3097 artifacts were recovered. The density per meter square of artifacts in this feature equalled 5595.

The stratigraphy in the units excavated was fairly simple. The pit had been cut into culturally sterile subsoils. Terminous post quem dates from the artifacts suggest the pit was abandoned in the 1860's. At that time, it was filled with charcoal and trash (Stratum D). The charcoal was so abundant that it formed the "soil" matrix for the artifacts. Above the charcoal deposit was a trash laden sandy humus; much of the humus appeared to have resulted from the decomposition of culturally organic materials. While present in the matrix, organics were not preserved as well as in the lower level. Charcoal was present, but not in the quantities found in Stratum D.

Above this trash deposit was a clean, almost culturally sterile sand layer. This was covered by the 1897 fill mentioned in earlier discussions of the Old School. There is no doubt that the feature predates the 1897 construction of the building.

Further tests of the feature were conducted in February, 1983. Two shovel tests were placed north of the units: one at N10.5W1 and the other at N11.8W1. The former test encountered the feature; the latter did not. Realizing that the feature was probably only about 2 meters long, north to south, it was recommended that the entire feature be salvaged before foundations were added to the Old School (Blee 1983b).

*Area measurement rather than volume measurement is used, because depth of deposit does not necessarily affect the density of artifacts. Human behavior creating the deposit, length of time taken to accumulate, and physical properties of the deposit are more likely to affect artifact density than merely depth. Since these factors cannot be uniformly accounted for in these discussions, only area measurement will be used.



EAST PROFILE AT WEST 0.15

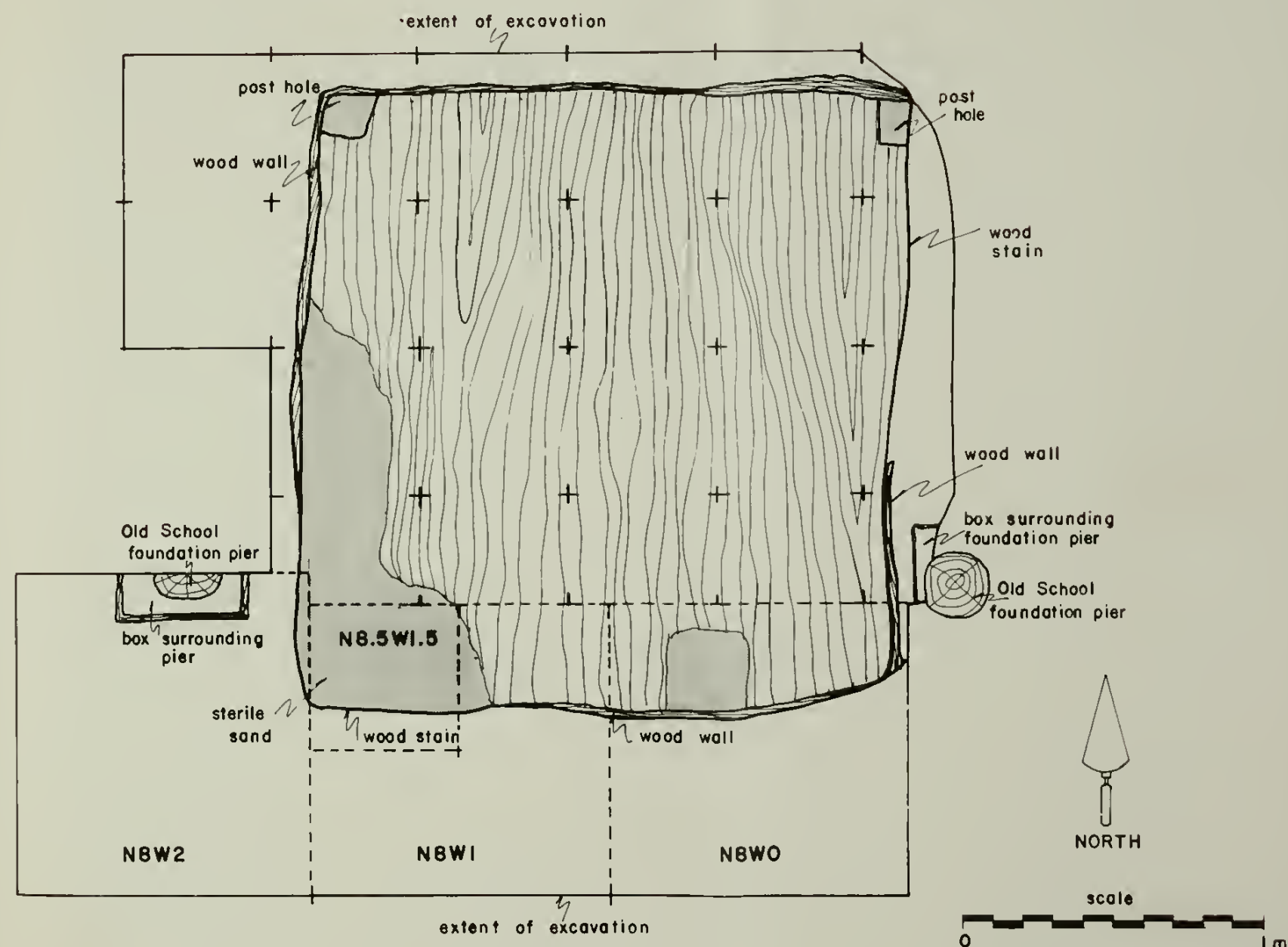


Figure 46: Plan and profile of Feature 12

PROFILE AND PLAN
 ARCHEOLOGICAL FEATURE 12
 OLD SCHOOL
 SITKA NATIONAL HISTORICAL PARK

PREPARED BLEE	DRAWING NO. 314/25008
DESIGNED BLEE	DSC Apr 85
DRAWN	PCIP
CHECKED 8/83	PKG
DATE	SHEET
	OF

A research design was developed to maximize scientific information gained from the excavation, in conformance with National Park Service policy (Blee 1983c). Excavation of the feature occurred in June and July, 1983.

Based on the types of artifacts recovered, the author believes the trash deposit to be associated with a building constructed to the east of the Bishop's House in 1845 as a seminary for the Russian Orthodox Church. When the seminary was moved to Yakutsk in 1858, the structure was converted to a hospital, as the one in use was inadequate for the needs of the inhabitants (Dmytryshyn and Crown-Vaughn 1979: 65, Mote 1981: 113, DeArmond, 1981: 89, Shalkop 1981: 6). The U.S. Army continued to use the building as a hospital from 1867 to 1877. The Navy, which replaced the Army command in 1877, left the building empty until 1880. At that time the Presbyterian mission requested its use as a boarding school for Tlingit boys. The structure burned in January, 1882 (Austen 1892: 241-44).

In order to proceed with the dissemination of the results of the other excavations, Feature 12 will not be fully reported here. Analysis of artifacts recovered in 1983 is still underway and a reporting of material found in 1981 would be incomplete without the results of the more recent excavations. Therefore, that material will be reported separately. A summary of the artifacts found in the 1981 excavations of the feature is given in figure 47. This list exemplifies the great wealth of the deposit. The feature is by far the most significant yet found on the Russian Bishop's House property in terms of numbers of artifacts, integrity of deposit, and potential to yield information unavailable through other sources. Its reporting will make a significant contribution to the knowledge of 19th century medicine, hospitals, Sitka diet, and the availability of goods on the Russian Alaska frontier.

Figure 47: Inventory of ceramic and glass vessels from the south side of Old School, 1981 excavations.

<u>KITCHEN GROUP</u>	<u>MINIMUM NUMBER</u>
<u>Dishes:</u>	<u>62</u>
dinner plates	5
serving dishes	3
bowls	3
mugs	3
salt cellar	1
stemmed glassware	1
tumblers	2
tea sets	
pots/lids	9
cups	11
saucers	1
small bowls*	1
small plate*	1
non-diagnostic sherds	
whiteware	
edge molded	1
molded body	1
blue transfer	6
brown transfer	3
black transfer	1
green transfer	3
flow blue	3
porcelain	
underglaze blue	1
green transfer	1
gold lustre	1
overglaze enamel	2

*These items are included with the "tea sets" rather than with general bowls or plates since their pattern matches the tea cups and teapots.

KITCHEN GROUPMINIMUM NUMBERContainers:

wine/champagne bottles	8
"black" glass spirits bottles	12
brown glass liquor bottles	7
clear glass liquor bottle	1
beer bottles	5
olive oil bottle	1
sauce bottle	1
condiment bottle	1
patent medicine ("N CLARK")	1
prescription bottle - Blake style	1
canning jars	
aqua	1
amethyst	1
"black" glass case bottle	1
aqua round-mold blown	1
pale aqua round-mold blown	2
dark blue/green	
round - cup bottom mold	1
round - automatic	1
clear	
square - solid iron bar pontil	1
round - automatic	1
narrow mouth exterior screw threat	1
wide mouth - automatic	1
green	
crude, applied laid-on-ring finishes	2
bright green tooled finish	1
non-diagnostic sherds	
aqua glass	28
cobalt blue glass	1
clear glass/red enamel hand-painted	1
flat "black" glass	2
green glass	3
brown glass	1
clarified glass	<u>24</u>

Total 115

ACTIVITIES GROUP

Storage Class

brown glazed redware crocks	10
yellow glazed redware crock - wide mouth	1
green case bottle - wide mouth	1
carboys - 1½ to 2 gallon volume	5
non-diagnostic sherds, ceramic	
black glaze exterior/white slip interior	1
brown glaze exterior/gray glaze interior	1
mold - blown storage jars - clear glass	<u>5</u>

Total 24

Tobacco Class

meerscham pipe bowl	1
---------------------	---

Medical Class

apothecary bottles/shop rounds	10
apothecary jar	1
pill bottle	2
graduated measures	2
ground glass stoppers	2
glass tubes	6
stoneware mineral water bottles	
unmarked - large	4
unmarked - small	1
"Herzogthum Nassau - Selters"	1
Russian marked	2
nurser/cupper	<u>1</u>

Total 31

PERSONAL ITEMS

Grooming and Hygiene

perfume ("Maria Farina")	1
shaving mug	1
toothpowder box/cosmetic jar lid	1
ointment pot	1
cosmetic jars	<u>4</u>

Total 8

ARTIFACT ANALYSIS

Throughout the report to this point, brief mention has been made of artifacts and the functional or temporal information they gave to analysis of the stratigraphy or sequence of events at each unit. This section of the report will be devoted to the overall patterns of artifact distribution found on the site, and how they contributed to the conclusions summarized earlier in the text. It is important to emphasize that these are not esoteric "pure research" types of analyses: the conclusions presented earlier could not have been made without the analysis that follows.

The chi square test was used rather extensively in the preceeding analysis to demonstrate how the arbitrarily excavated 10 cm levels correlated with the naturally occuring stratigraphy in the deposit on the assumption that artifacts deposited in the same manner at the same period in time would appear in the same relative frequencies. In the following section, the assemblages are compared across the site in an effort to determine whether any overall patterns of artifact distribution on the site can be observed. South (1978) postulates patterns of artifact distribution on 18th century British-Colonial sites in South Carolina which have been widely and sometimes indiscriminately applied to other historical archeological sites. It should be noted that the author does not attempt to draw any parallels with South's patterns, nor does she attempt to postulate a sort of "Russian Frontier Pattern." Combining the results of Hsu's 1978 excavations, Shinkwin's 1975 work and these excavations, a total of 47 units are analyzed here. These 47 units placed on the site in a non-random manner cannot yield the type of data necessary to postulate overall patterns of behavior by nineteenth century Russians. However, we can describe generalized assemblages drawn from an admittedly skewed sampling in hopes that future work on other similar sites can benefit by these observations. Since the sample is skewed, it cannot describe what is a normal distribution for artifacts at the Russian Bishop's House, but it can describe the way artifacts were found in the areas that were excavated, and probably the way they will be found in the immediate vicinity of areas excavated.

TEMPORAL DISTRIBUTION OF BOTTLE GLASS

Because so few of the artifacts found in the yards of the Bishop's House, Priest's Residence, and Old School, could be dated closely it was found that seriation models were needed to help define the age of a given deposit. This investigator had used ceramics as temporal indicators on an earlier site (Blee 1984), but found the frequency of ceramics at Sitka to be rather low for such an evaluation. Furthermore, the major changes occurring in the ceramic industry resulting in temporally diagnostic characteristics took place in the early and mid-nineteenth century. What was needed at Sitka was a temporally diagnostic artifact type, easily recognised, and one which was undergoing major technological changes in the late 19th and early 20th centuries. Bottle glass fit the criteria exactly.

Major changes began to occur in the glass industry in the 1880's. The growth of the industry, combined with an increasing trend towards conspicuous consumption, and changing attitudes towards health and sanitation all combined to affect the quantity and variety of glass containers that became available at this time. The pastuerization of beer made possible the wide-spread dissemination of what before had been a local product. It also required bottling in brown glass to retard bacterial growth in the bottle. Growing awareness of the importance of sanitation in controlling disease encouraged food manufacturers to bottle their products in clear containers so that the customer could see that his or her purchase was uncontaminated. These demands encouraged the bottling industry to seek cheaper and more efficient means of coloring or discoloring their glass. The green and aqua colored glass bottles of the 19th century gradually became replaced with the clear and brown bottles of the 20th. It was believed by this investigator that a measure of the relative frequency of bottle glass colors in a deposit would assist in the evaluation of age of undated deposits.

This investigator believed that measuring the quantity of different colored sherds of bottle glass in a deposit would be the most efficient measure of change in technology. Each sherd had a color; analysis was not dependent upon certain types of characteristics such as seam lines, pontil marks, or finishes being present. Furthermore, color was a characteristic known to have changed during the time being considered.

The following dates of colored glass show this change. The dates have been taken from Ward, Abbink and Stein (1977: 240) which in turn were derived from several reliable sources; they have been modified somewhat by the author based on conversations with other investigators working on early nineteenth century sites and her own experience with well dated deposits in Harpers Ferry (Blee 1984). The dates are for the most frequent occurrence of the glass color, recognizing that most coloring agents were known to glass manufacturers long before their common appearance in archeological sites. Common appearance is regarded by this investigator as occurring more often than an isolated sherd or bottle in a given deposit. The bottle glass colors and dates are: "black" glass, pre-1885; aqua, 1830-1910; brown, 1880 - present; clear, 1930 - present. Obviously aqua colored glass is still found today, most notably in Coca-Cola bottles, although even they are becoming scarce with the use of aluminum cans and plastic bottles. While clear glass was certainly available even in the 18th century, its large scale manufacture did not occur until the 20th century. Mention of purple tinted glass, indicating the use of manganese as a clarifier, is omitted here, as very little was found at the Russian Bishop's House. This is probably because the purple color is not activated unless exposed to direct sunlight for a period of time, and most of the glass recovered had been buried since its disposal.

Shades of green glass, with the exception of "black" glass, are ubiquitous throughout the period being studied. It was anticipated that, not counting the green glass, black glass would be most frequent in the early deposits on the site, with a steady decline in relative frequency through time. Aqua colored glass would start low in frequency, climb to a peak at the turn of the century, and decline after that. Brown glass

would start low in frequency and climb steadily well into the 20th century. Clear glass would be extremely low in relative frequency in the early deposits, gradually increasing after the middle of the 20th century.

Seven glass colors were counted for each provenience: black, aqua, brown, green, clear and all others. Chi square tests were conducted on each temporal assemblage against the next most close temporal assemblage. This was done to isolate periods of time that could be described by a recognizable assemblage of bottle glass. It was anticipated that some lumping of spatially separate assemblages would occur.

The first test compared the bottle glass in the identifiable National Park Service deposits to the combined mid- to late twentieth century deposits. The test was calculated as follows:

	NPS	mid-to late 20th	
green	25.2 20	45.8 51	71
black	14.9 8	27.1 34	42
aqua	20.2 17	36.8 40	57
brown	136.7 157	248.3 228	385
clear	67.1 64	121.9 125	189
Other	2.8 1	5.2 7	8
Total	267	485	752

Null Hypothesis: There is no significant difference between the two bottle glass assemblages.

Alternate Hypothesis: The two bottle glass assemblages do differ significantly.

Degrees of Freedom = $(k-1)(r-1) = (6-1)(2-1) = 5$

At 5 degrees of freedom and a probability that the null hypothesis will be incorrectly rejected at the 0.05 level of significance, chi square should be greater than or equal to 11.07.

Chi square = 14.077

Therefore, we must reject the null hypothesis in favor of the alternative hypothesis. The two assemblages vary significantly.

Similarly, the mid- to late twentieth century bottle glass assemblages were tested against those found in the early twentieth century deposits. The sherd counts are shown in figure 48.

Because the 19th century deposits showed such variation in functional groupings from the yards to the areas next to buildings, the bottle glass

Figure 48: Table of bottle glass colors in the five temporal groups

glass color	ca. 1865*	1865- 1897	1897- 1930	1930- 1975	1975- 1981	total
green	1683	150	5	51	20	1909
black	1038	104	6	34	8	1190
aqua	302	92	3	40	17	454
brown	115	135	11	228	157	646
clear	1007	203	14	125	64	1413
other	4	13	0	7	1	25
totals	4149	697	39	485	267	5637

in these two areas were likewise tested. It was found that there was no significant difference in color distribution between the late 19th century Old School and yard deposits ($\chi^2=6.018$, $df=5$). Furthermore, there was no difference between the 1897 fill deposits and the other late 19th century ones at the site ($\chi^2=10.075$, $df=5$). This suggests that changes in relative frequency of glass color was dependent on the time in which the glass was deposited, not the function of the glass containers. We had already observed wide variation in functional distribution of artifact classes across the site. It was expected that if brown glass, for instance, was used primarily for beer bottles, and clear glass for food storage jars, then there would be a significant difference between the yard and Old School deposits. The lack of significant difference strengthens the reliance on the glass color as a dating rather than functional tool.

Finally, a test of the Feature 12 (ca. 1865) deposit with the combined late 19th century and 1897 fill deposits yielded a chi square value of 397.278 ($df=5$) indicating a substantial and significant difference in the two assemblages.

These tests resulted in the formulation of five time periods with bottle glass assemblages which varied significantly from one another: 1) ca. 1865; 2) the late nineteenth century, ca. 1865-1897; 3) the early twentieth century, 1897-ca. 1930; 4) mid- to late twentieth century, ca. 1930-1975; and 5) NPS affiliated deposits, 1975-1981. The numbers of sherds found in each deposit is shown in figure 48.

In order to determine which of the glass colors did or did not vary significantly through time, each color was tested against all of the other colors combined in each of the five temporal groups.

*This includes sherd counts from both the 1981 excavations and the 1983 excavations in Feature 12.

As an example of how the statistic was calculated the entire test for the green bottle glass will be shown. The chi square value is listed for each of the other colors; the test was conducted in the same manner for each color as for the green glass.

	green glass	other colors combined	
1865	1405.1	2743.9	
1865-1897	1683	2466	4149
1897-1930	236.0	461.0	
1930-1975	150	547	697
1975-1981	13.2	25.8	
	5	34	39
	164.2	320.8	
	51	434	485
	90.4	176.6	
	20	247	267
	1909	3728	5637

The Null Hypothesis: There is no significant difference in the frequency of green glass compared to all other colored bottle glass in through time.

The Alternate Hypothesis: The relative frequency of green glass varies through time.

Degrees of Freedom = $(k-1)(r-1) = (5-1)(2-1) = 4$

At four degrees of freedom, and the level of significance of 0.05, chi square should be greater than 11.07 in order to reject the null hypothesis.

Chi square = 339.065

Therefore, we reject the null hypothesis in favor of the alternate hypothesis. The frequency of green glass to other colored glass does vary through time at the Russian Bishop's House.

Listed below are the chi square values for each of the colors as tested against all other colors combined:

<u>bottle glass color</u>	<u>chi square</u>
green	339.065
black	124.958
aqua	29.409
brown	1555.710
clear	10.214

The other colored glass was not tested against the combined named colors as the frequencies of that category were too small to meet sample restrictions of the test. Only the clear colored glass shows no significant change in frequency through time. All other colors vary significantly in frequency through time.

The curves shown in figure 49 can be said to demonstrate trends of change in glass color frequency through time at the Russian Bishop's House site. Green bottle glass is highest in frequency in the middle of the 19th century, declines rapidly to the turn of the century, then slowly levels out at a low level in the 20th century. Black glass likewise is most frequent in the middle of the 19th century, declining most noticeably after the early twentieth century. Aqua colored glass, present in all temporal units, was most frequent in the late 19th century. Brown glass is extremely low in frequency in the 1865 deposit, but climbs steadily after that time until it represents almost two thirds of all bottle glass in the most recent deposits.

Clear glass trends were the most surprising to this author. It was anticipated that frequencies would be low in the mid to late 19th century and would climb after the turn of the century to eventually represent a major portion of the bottle glass assemblage. Instead, it represented one quarter to one third of the assemblage in all deposits. The chi square test shows that the variation is not significant at the 0.05 level of confidence. Since the curve does not follow that of the proposed model, which was temporally based, it is suggested the apparent lack of change may have more to do with changing functions of artifacts in the deposit than the amount of clear colored glass that was available at a given point in time. For instance, the hospital trash dump contained a large proportion of clear glass obviously used as tincture bottles. The ability to see the color of the liquid in the bottle would have been more important to the doctor than to a person drinking wine. The obvious hospital association of the ca. 1865 deposit obviously affected the frequency of clear glass. There are so many variables at work here that it would be extremely difficult to sort them out.

Other researchers should be cautioned that the frequencies listed here are not meant to be used to date other sites. The author believes the use of relative glass frequencies to be an extremely useful dating tool when used for intra-site analysis. However, since other factors may influence the distribution of glass colors on a site (e.g. economy, cultural affiliation) it may not be wise to use these frequencies as temporal indicators on another site. For example, this author would not expect the frequency of brown bottle glass to be as high in a fundamentalist church yard as in a college fraternity house yard. However, she would expect the overall frequency of brown bottle glass to increase through time at both sites. Predictive frequencies must be formulated for each individual type of site before the tool can be used for intersite analysis.

Unit N8W2 had not been included with any of the preceeding calculations because of the extent of disturbance that had occurred at that location. There, the excavation for the foundation pier had distributed mid-19th century material throughout the entire unit. Although some little disturbance could be tolerated for the statistical tests, in this case it could not be, because the disturbance had intruded upon Feature 12 with its extremely high density of artifacts. All artifact frequencies in the unit were badly skewed by the mixing of the high density mid-19th century deposits.

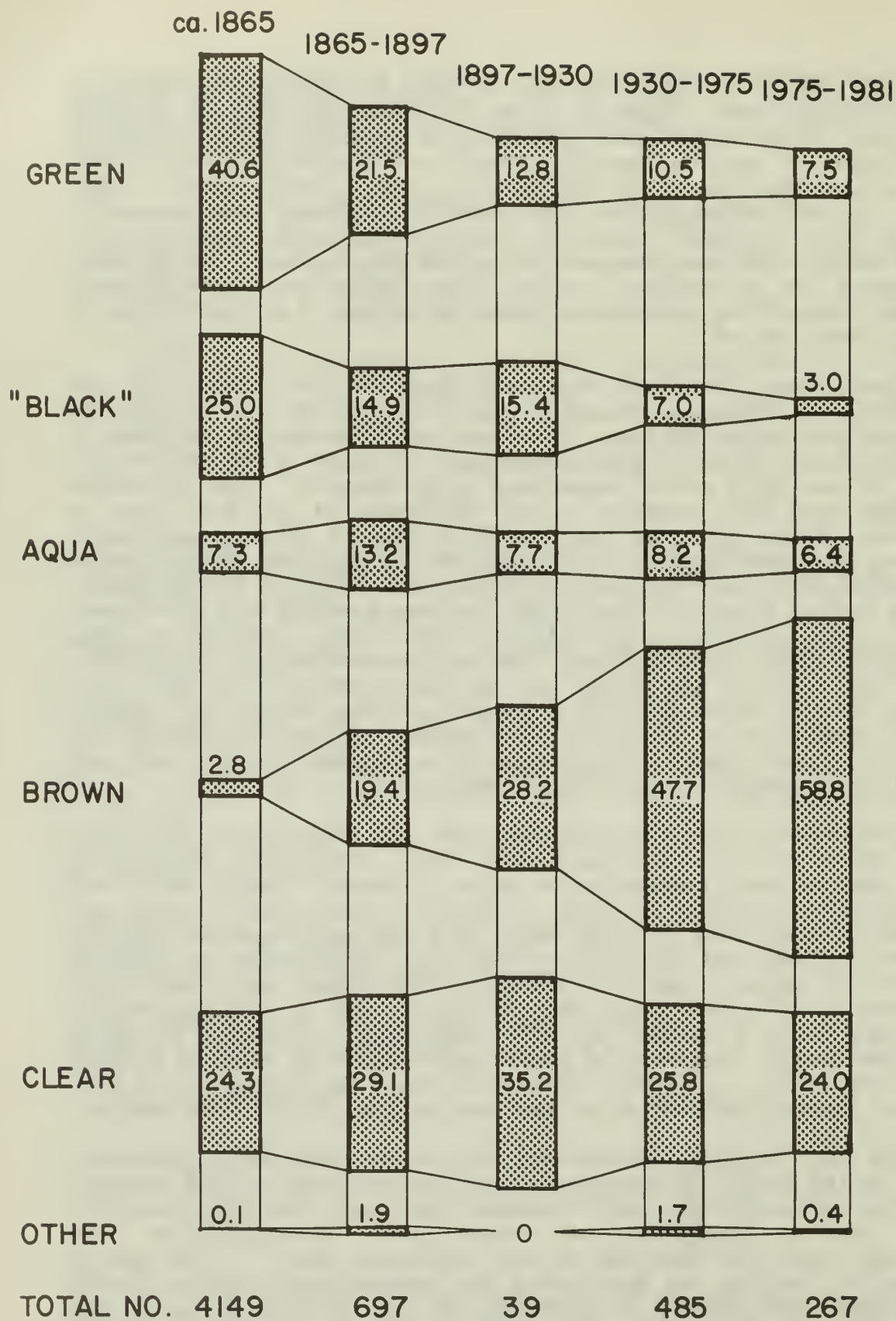


Figure 49 : Temporal distribution of bottle glass colors.

THE SPATIAL DISTRIBUTION OF NON-STRUCTURAL ARTIFACTS

Historical archeologists recognize that artifacts are not found distributed evenly across a site. They tend to be found in high densities in some areas and in low densities in others. It is assumed that this uneven distribution has meaning; that it is not random, but is caused by the behavior, conscious or unconscious, of the people losing or disposing of the artifacts. The study of the distribution of artifacts across the site can give the archeologist information on how people were behaving in their day-to-day lives. This behavior is often unconscious behavior, and would not have been recorded in documents. In this sense, the archeologist can provide information not available through traditional historical research methods.

. . . artifact density will be mapped to assist in determining area function. Density of ceramics, bone, bottle glass, nails, window glass and any other artifacts found in sufficient frequency to indicate area function will be plotted on a site map to pinpoint clustering and assist in evaluation of deposit significance. This analysis should incidentally shed some light on nineteenth century Russian disposal patterns, a topic of interest to historical archeologists (Blee 1981: 9-10).

In the following discussions of the horizontal distribution of artifacts, fill deposits have been deleted from density counts.

Because the bulk of the archeological investigations occurred in the yards, traditionally areas of low artifact density, it was quickly found that artifacts did not occur frequently enough to evaluate density patterns of individual classes of artifacts. There were two exceptions: the window glass and nails. The spatial distribution of structural artifacts on the site will be discussed in the next sections. Plotting the distribution of all non-structural artifacts (i.e. Domestic, Personal and Activities group artifacts) revealed some important data.

Structural artifacts were eliminated from the density counts because it was recognised that their presence could be directly attributable to the proximity of a structure. While determining the presence of a structure was of importance in the case of the two test units placed south of the Priest's Residence, the main consideration was in determining what sorts of activities would contribute to concentrations of artifacts in the yards and around the structure.

South (1977) had found on British American sites of the late 18th and early 19th century that doors could often be located without structural evidence merely by the concentration of non-structural artifacts. He had concluded that people of that time were dumping much of their household trash immediately outside the doors, and that little effort was being expended to remove it further from the building. Moran (1977) had found a similar phenomenon in the northeast portion of the country for the same time period. Others had observed a similar distribution pattern and the occurrence of large densities of artifacts along building walls was recognised as an indicator that a door was located at that point in the wall.

Research conducted at Harpers Ferry, West Virginia by this author (Blee 1984) had led to the conclusion that this pattern tended to change after the early 19th century (Blee and Hsu 1984). In the site studied, well defined stratigraphy in 30 to 40 year intervals were present, which allowed the investigator to plot artifact densities both through space and through time. It was found that while non-structural artifacts did indeed cluster around doorways in the later 18th and early 19th centuries, after about 1840, there appeared to be a movement of artifacts away from doors. This movement was gradual; by the twentieth century, it appeared that artifacts were being disposed away from the dwellings in areas where people rarely went. There are, no doubt, many explanations for such behavior changes. Perhaps space was running out next to the doors; perhaps an increasing awareness of the role of bacteria and viruses in spreading disease encouraged the disposal of trash away from the living quarters. Certainly the appearance of mass produced disposal goods and redundant packaging today requires the removal of trash from our immediate living spaces. Other reasons probably exist for the observed phenomenon.

More recent research on late 19th and early 20th century sites tend to confirm this trend. Moir, Lee and Saunders (1982) contend that artifacts were clustering as much as 8 to 12 meters away from buildings on the sites they sampled in Texas.

In an effort to see how artifacts were clustering at the Russian Bishop's House, the number of artifacts found in each meter square unit was plotted on a site plan. Each unit was broken down into two time periods: the 19th century (1843-1897) and the 20th century (1897-1981). These two time groups were used since they were present and discernible in almost every unit tested. They also represent the two periods in which there were substantial structural differences on the site. In the 19th century, the Old School was not present and the original galleries were connected to the Bishop's House. In the 20th century, the Old School was present, and the second set of galleries had replaced the first.

Data from Shinkwin's 1975 excavations and those done by Hsu in 1978 were also included. In these cases, the number of artifacts per meter square were calculated from the number of artifacts recovered divided by the size of the excavation unit in square meters. Because both Hsu and Shinkwin contend that most of their artifacts date to the 19th century, and because their overall densities are much less than the 20th century densities recovered in the 1981 excavations, their data was included with that from the 19th century.

Figure 50 shows the resulting distribution of 19th century artifacts. Four important types of information were found on this map.

First, an obvious concentration of non-structural artifacts exists in the area of the Feature 12 trash pit (424 artifacts per square meter). This was no surprise. What was surprising was the rather high density of artifacts in the 19th century deposits of the unit located about six meters to the northeast of the pit (172 artifacts per square meter). In contrast, the density of the unit immediately to the southwest of the feature (40 artifacts), the one 6 meters to the northwest (39 artifacts) and the unit located 11 meters to the north (12 artifacts) are all very low.

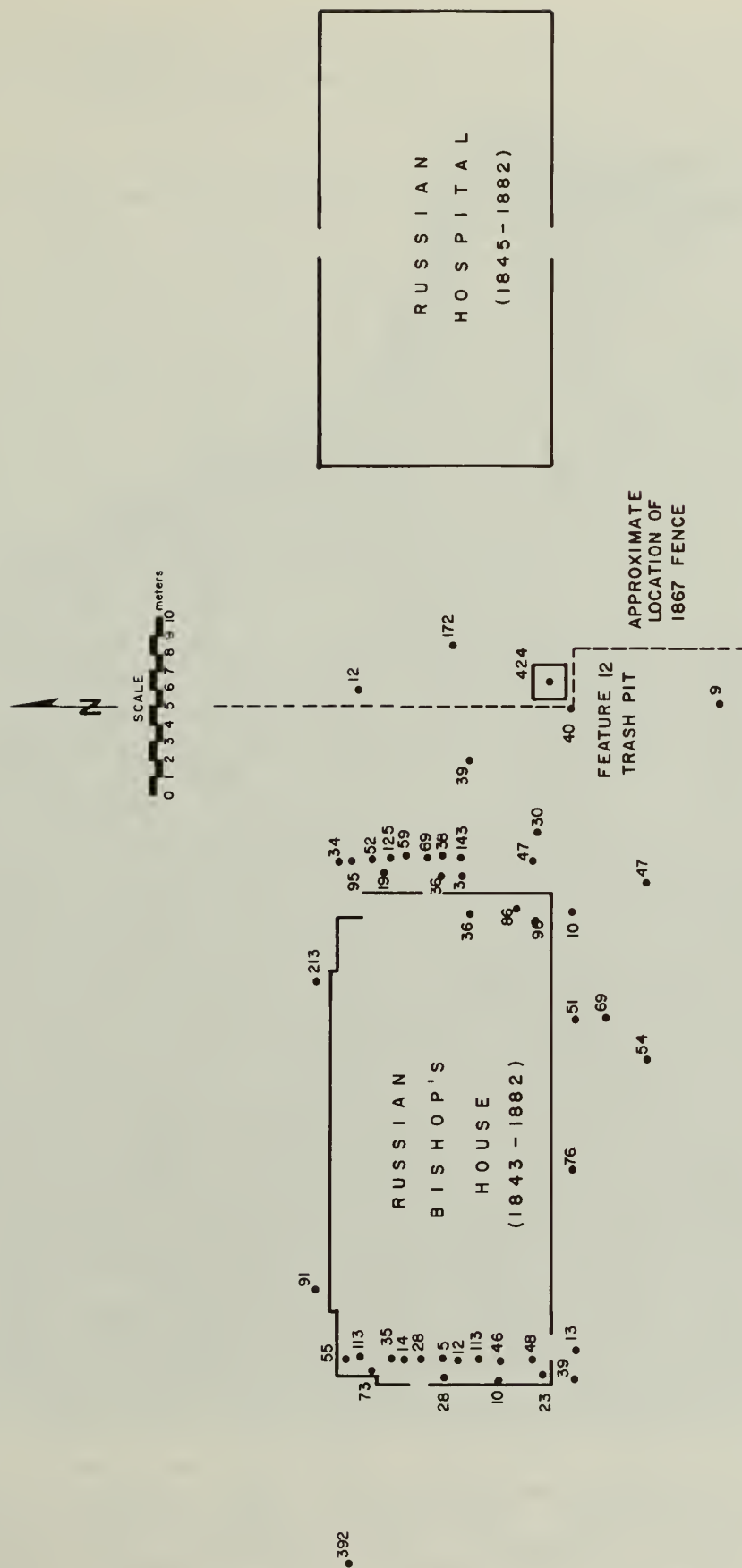


Figure 50: Spatial distribution of 19th century non-structural artifacts in non-fill deposits.

This suggests an origin of the trash in the pit somewhere to the northeast, rather than to the west where the Russian Bishop's House is located. What was originally located to the east of this feature?

Historical records and photographs indicate that the Russian hospital was located 11 to 12 sazchen east of the Russian Bishop's House (figure 51). It was originally built as the seminary for the Russian Orthodox Church which opened in 1845. When the seminary was moved to Yakutsk in 1858, the building was converted to a hospital. When the United States purchased Alaska in 1867, the building was turned over to the U.S. Army, which continued to use it as a hospital. It was abandoned in 1877 when the Army left; the U.S. Navy did not use the building. When the Presbyterian missionaries' boarding school burned in 1880, they approached the Navy about using the old hospital building. Permission was granted, and the building became a boarding school until it burned in January, 1882 (Austen 1892; Dymtryshyn and Crownhart-Vaughn 1979: 65; DeArmond 1981: 89; Brooke 1875: 480-481). John Brooke, Assistant Surgeon of the United States Army, posted in Sitka in 1875, has given the most detailed description of the hospital. In this description, he writes:

The staircase opens on the second floor into a wide hall, which extends from the rear half way across the building; and from the back end of this hall a door opens upon an outside stairway leading to the ground below, and giving access from the second floor to the wood shed, water-closet, &c. (Brooke 1875: 480) [emphasis added].

This description suggests a door in the back of the hospital building. It is possible, considering the higher density of artifacts to the northeast of the pit than to the south or west, that the trash originated with the hospital rather than the Bishop's House. Also, as has been shown on other historical sites (Moran 1977; South 1978; Blee 1984; Blee and Hsu 1984; Moir, Lee and Saunders 1982) artifact densities tend to be greater in the back yards of buildings than in the front yards. This is no doubt due to the fact that back doors are often closer to the kitchen where most domestic trash originates.

Dates on the artifacts found in the feature certainly suggest that they could have been deposited before the hospital building burned down in 1882. The youngest artifact in an undisturbed context from the feature could have been made as early as 1867. Of the artifacts recovered from the feature in 1981, the mean ceramic date is 1852 (± 9 years); the mean glass date is 1868 ± 8 years, and the combined glass and ceramic mean date is 1865 ± 11 years. All three dates support the thesis that the dump dates to the period of time in which the building was still extant.

Perhaps the most convincing data are the artifacts themselves. Of the 241 non-structural artifacts (minimum vessel count, not sherd count) recovered from the feature in 1981, 31 or 12.9% could be attributed to use in a hospital. An additional 10.0% (24 items) would have been used for storage of liquids for bulk dispensing. Finally 33 bottles (13.7%) originally held alcoholic beverages; an extremely useful product in a 19th century frontier hospital. The medically related artifacts include 10 apothecary bottles (often called shop rounds), 1 apothecary jar, 2 pill



474—Sitka, Hospital and Priest's Residence.

Figure 51: 1867 photograph of the Russian hospital with the Russian Bishop's House in the background. Looking northwest (Edward Muybridge, photographer. The Bancroft Library, University of California, Berkeley. Special courtesy of the San Francisco College for Women).

bottles, 2 graduated measures, 6 glass tubes, 1 blood cupper(?), and fragments of two stone apothecary pestles.

These data all suggest that the Feature 12 trash pit was used by the occupants of the hospital and that the trash was brought from the back door to the pit between the building and the Russian Bishop's House. The spatial distribution of the artifacts suggests that the Russian Orthodox Church did not use the trash pit. An 1867 photograph of the hospital (figure 51) reinforces this conclusion. A fence between the two structures distinctly separates the yards.

This photograph is of interest from another point. It can barely be discerned that the fence takes a 90° turn at a point between the southeast corner of the Bishop's House and the southwest corner of the hospital. The fence appears to head east for a few feet, then turn south again. A few feet to the east of this jog in the fence line, one can barely see what appears to be a board lying on the ground. In addition, the 1867 transfer map (figure 25) indicates the jog in the fence line. However, the map shows the fence continuing to the east; which does not occur in the photograph.

The author suggests that the jog in the fence originally occurred around a structure; that is, the superstructure above Feature 12. When the superstructure was removed, apparently before 1867, the fence maintained its jog. The seven foot square pit then became a receptacle for trash.

The next most obvious cluster of artifacts is found to the northwest of the Russian Bishop's House in the south yard of the Priest's Residence. The building that is currently used as an office and storage space was originally brought to the site in the 1930's, so has very little to do with the artifacts found there. This dense clustering in the area, denser than any area adjacent to the Bishop's House with the exception of Feature 12, suggests a nineteenth century trash pit or structure in the immediate vicinity. As will be seen in the discussion of the window glass, there is also a rather dense concentration of window glass at this area, suggesting the presence of a structure rather than a deliberate dump. Also the soils are more characteristic of a gradually accumulating humus rather than a trash deposit.

In the earlier discussion of the units south of the Priest's Residence, it was suggested that this concentration of artifacts originated with outbuildings associated with the Sipiagin building, known as Building no. 99 on the 1867 transfer map.

The third major type of information provided by the plotting of artifact densities regards the distribution in relation to doors of structures. The most obvious concentration is in a unit excavated by Dick Ping Hsu in 1978 near the northeast corner of the Bishop's House. The nearest door to this unit was 6 meters away at the northeast corner of the original 1845 gallery. After 1887, the door was only about 2 meters from this unit. Both doors were the closest outside door to the kitchen, which was located in the northeast corner of the main structure.

Hsu (1984) reports that the unit was placed under the window serving the Bishop's House kitchen. He believes that the artifacts found in this location were deposited through the window rather than from the door to the east. Unfortunately, he did not have enough time to test the assumption; by the time of our 1981 excavations, the entire perimeter of the Bishop's House had been disturbed by foundation replacement activities.

Shinkwin found three smaller concentrations along the east side of the building: one about 2 meters east of the door,* one 3 meters southeast, and another 6 meters south. On the west side of the structure, she found a small concentration 3 meters north of the west door, and another three meters south of the same door. These latter two clusters were underneath the original galleries, so more than likely relate to the post-1887 gallery door, which was opposite the 1845 door.

These smaller concentrations away from the doors tend to be reinforced by the very small densities immediately in front of the doors on the west side. Note that only 13 non-structural artifacts were found per meter square in front of the southwest door, and only 14 in front of the west door. There is also a relatively low density of artifacts immediately in front of the east gallery door. It is difficult to assess whether this type of clustering continues towards the northeast (kitchen) door because no excavations occurred immediately outside that door.

This distribution reinforces what had been observed by this author at Harpers Ferry, West Virginia; by the middle of the 19th century, it appeared that trash was clustering further and further away from doors. Between 1843 and 1896 at the Russian Bishop's House, artifacts clustered most densely in areas of deliberate trash disposal, with densities becoming lower along the pathway to the door from which wastes were removed from a structure. Immediately next to the door, artifact densities were very low, but increased significantly at two meters from the door, and continued to increase in some instances as much as 6 meters from the door. It appears that the back doors were used most frequently for trash disposal; the front doors were obviously more public oriented, where less material culture was entering and leaving the building.

A final note on the spatial distribution of nineteenth century non-structural artifacts at the Russia Bishop's House: five units were excavated in the front yard, an area which reportedly was used for gardening. Figure 51 indicates a relatively even distribution of artifacts in the front garden area, suggesting that no obvious pathways or cultivation patterns were discernable from the distribution of non-structural artifacts in the five units placed there.

Figure 52 displays the non-structural artifact density for 20th century deposits on the site. As can be seen, there is a denser distribution of

*Most of Shinkwin's east side excavations were outside the original 1845 gallery.

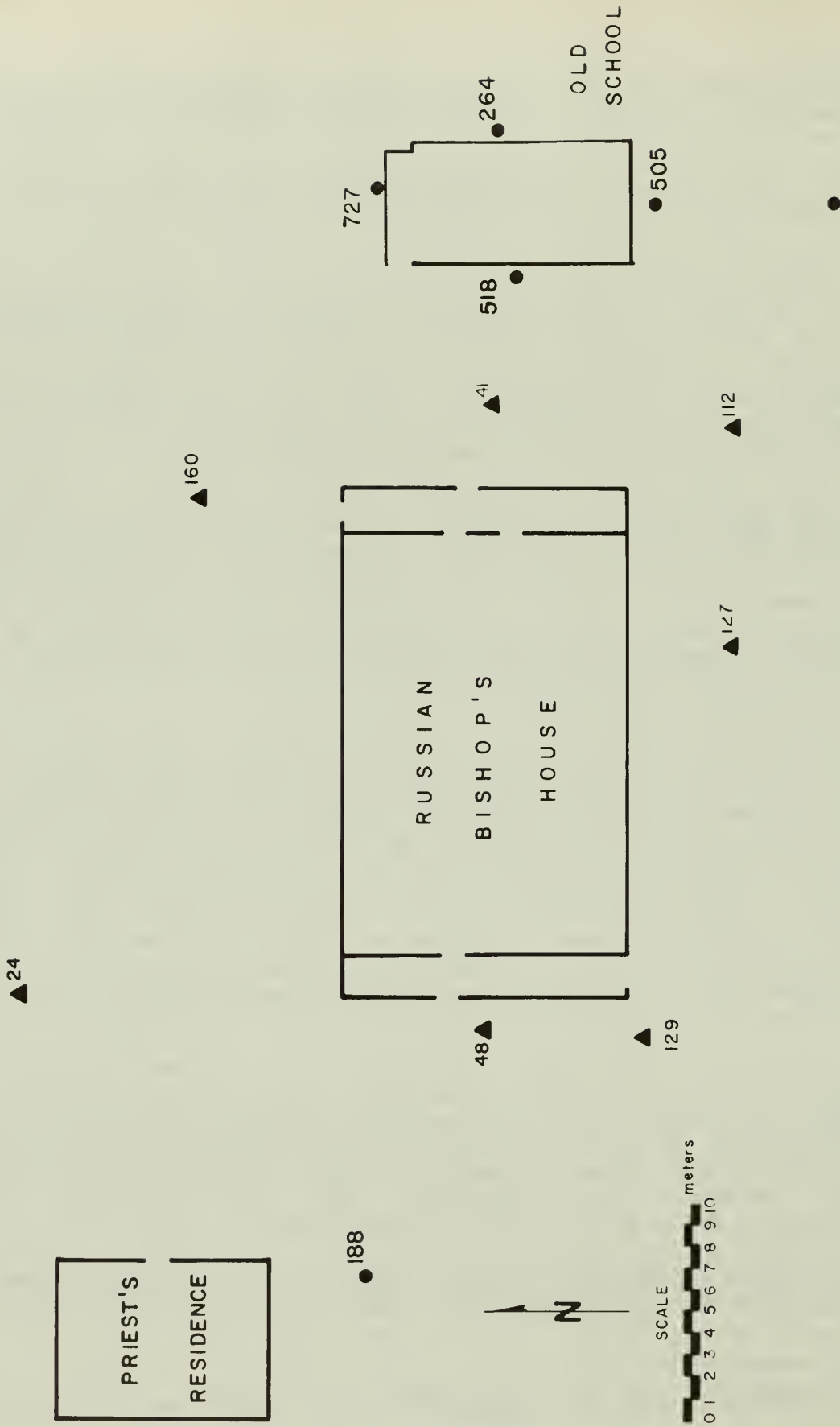


Figure 52: Spatial distribution of 20th century non-structural artifacts

artifacts around the Old School than around the Bishop's House. There also appears to be a slightly greater density south of the Priest's Residence.

At the Old School, we once again see high densities of artifacts nearest the back door. The lowest density encountered around the Old School was just outside the main, east door.

Perhaps the most surprising phenomenon seen on this map is the considerably greater density of artifacts around the Old School than around the Russian Bishop's House. It appears that the people living at the Old School were much less deliberate about trash disposal than those living at the Bishop's House in the 20th century. The last record of the Old School that could be found by this investigator or historian Shalkop was in 1923 when the public school system ceased to lease the building. Shalkop reports:

This building became a tenement--a slum--and was rented to various people who did not take care of it and made what changes were necessary in order to live in it. After the Revolution of 1917, the Russian Orthodox Church, whose headquarters were in New York, did not have any means to support its clergy. The buildings were abandoned and what repairs were made were done so with minimal means--often by the tenants themselves.

Isabel Miller, a Health Department employee, came to Sitka in 1963; she remembers a poor Indian woman living in the "old school building" with a large number of children . . . (Shalkop 1981: 48b).

This author suggests that one reason for the high density of artifacts around the Old School, in direct contrast with the Russian Bishop's House next door, may be a difference in socio-economic status. The priests may have behaved differently towards yard upkeep than did the low income family renting the Old School building. Whether this was a function of ethnicity, social status, economic status or available time cannot be determined from the data.

Another possible explanation may involve the distance to a single trash receptacle for all occupants on the property. Logically, this receptacle would have been placed near Monastery Street where it could be picked up by garbage collectors. Occupants of the Bishop's House had a much shorter distance to carry their trash than did the occupants of the Old School, which may have encouraged the latter to dispose of non-organic trash outside their door.

Finally, it should be mentioned that in Harpers Ferry National Historical Park the author had found instances of deliberate trash disposal in building areaways, basements and yards. This occurred when the occupants of buildings were forced to move upon purchase of the property by the National Park Service (Blee 1984: 149). In instances where tenants do not directly benefit from NPS purchase of a property, as does the seller, resentment may encourage deliberate trash disposal in

the immediate vicinity of property being vacated. Since the Bishop's House itself had been occupied by the Church, which in turn was paid for the property, it is likely that more care would have been taken in cleaning the premises when they moved.

It is most likely that all three possible explanations contributed to the large density of artifacts around the Old School compared to the much lower densities near the Bishop's House.

THE SPATIAL DISTRIBUTION OF NAILS

The spatial distribution of structural artifacts was analysed in two separate parts; the window glass and the nails. It was assumed that window glass density would be directly proportional to the proximity of a window at the time when a given deposit was formed. Nail density, however, might not depend on the proximity of a structure. Some temporary construction activities in a yard might result in high nail densities without the presence of a permanent structure. Therefore, the two classes were analysed separately.

Four concentrations can be seen on the map showing nail densities (figure 53). The first, south of the Priest's Residence, coincides with the high density of non-structural artifacts. The presence of a relatively dense concentration of nails in the deposit strengthens the author's contention that the deposit originated with a structure. Contrast this with the Feature 12 trash pit. Note that while the trash contained an extremely high non-structural artifact density, the nail density is only moderate. It appears that this moderate density continues to the north of the feature, following the fence line that can be seen in the 1867 photograph (figure 51). This fence is made of wood slats, which no doubt were held in place with nails.

A second concentration occurs immediately southwest of the southwest door to the Russian Bishop's House. Earlier in the report, the author mentioned that many of the nails were uncorroded wire nails. It is believed that this concentration may relate to NPS renovation activities at the site which were mixed with 19th century deposits when the curtain drain around the house was installed in 1978.

A third concentration is enigmatic. It lies along the west side of the structure, about four meters south of the west door and 4-1/2 meters north of the south door. This would have been under the original 1843 gallery. It coincides with a concentration of nonstructural artifacts.

The fourth concentration appears to have somewhat more meaning. The front yard area has a relatively dense cluster of nails in the center of the garden. The 1845 map prepared by the Russian American Company shows three squares in the front yard of the Russian Bishop's House (figure 4). Each square is dissected by two diagonal lines, cutting the squares into four triangles. The symbol used to darken these squares indicate that they are meant to represent the garden. A November, 1844 inventory of domestic property of the Bishop's House lists "4 glass frames for the compost pile" and the 1845 inventory also lists "4 frames for the

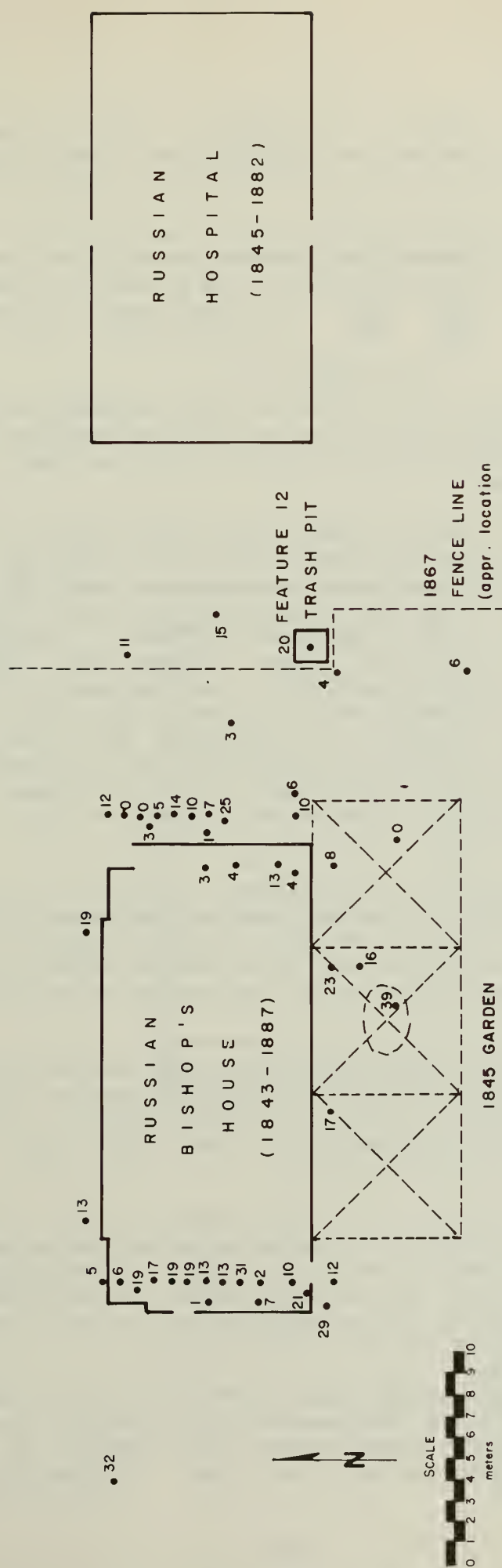


Figure 53: Spatial distribution of nails in 19th century deposits .

compost pile with glass." In addition, a list of moneys used for improvement of the house and grounds shows that expenses were paid "For building of the compost pile" (Mote 1981: 27, 29, 61).

Composting was indeed necessary as the sandy soil in Sitka was not entirely suitable for agriculture. Gibson reports that "seaweed was used as a fertilizer, and at New Archangel the gravelly soil was also fertilized with herring roe, fish remains, ground mussels, chopped twigs and leaves" (Gibson 1976: 107). Such materials may have required composting.

It seems likely that in Sitka's cool climate, composting may have required the assistance of glassed hot frames. This is certainly implied by the Bishop's House inventories which specify that the glass was to be used for the compost piles.

It is also probable that hot frames were used to assist in the cultivation of plants requiring warm growing conditions. Attempts at gardening in Russian America had more often than not met with failure. The only plants that seemed to do well were roots and tubers such as potatoes, turnips, rutabagas, carrots, radishes, and beets. Cabbage, lettuce and cucumbers grew only under glass (Gibson 1976: 100). Cabbage, especially, was a prized vegetable for the Russians who were very fond of sauerkraut. So greatly did they desire the food that they often imported it from California or "sometimes from around the world" (Dmytryshyn and Crownhart-Vaughn 1979: 37). Bishop Innocent, for whom the house was built, was known for his enthusiasm for gardening, and there is little doubt that when he occupied the house some gardening would have taken place.

The author suggests that the criss-cross marks on the gardens in front of the Bishop's House on the 1845 map are indications of the divisions of the garden, parts of which probably contained composting piles and hot frames. It seems likely that the nails found in 19th century front yard deposits were left as a result of the construction of hot frames or compost piles.

Figure 54 is a density map of nails in the 20th century deposits. Here it can be seen that the density patterns observed in the 19th century deposits are different than those in the 20th century. There appears to be an even, low distribution in the yards, with much higher concentrations around the Old School.

The high density of nails on the north side of the Old School may well be attributed to the creep of soil downslope against the school from an area to the north which held a ramshackle shack. A photograph taken about 1919 (figure 34) shows this building behind the Old School. The high density on the west side of the building may be due to the conversion of the door above the test unit to a window in 1923.

Another concentration occurs around N36W37.5 at the northwest corner of the site. This is where the remains of the privy pit were found, and where it appears that household ashes were deposited in the depression left in the ground after the privy was filled. The relatively high density



Figure 54: Spatial distribution of nails in 20th century deposits.

of nails could have been caused by the burning of pieces of wood containing nails.

The extremely low density of nails in the twentieth century deposits south of the Priest's Residence should also be noted. This is in direct contrast to the high density found in the nineteenth century deposits at the same location, providing further evidence of a nineteenth century structure in that location.

To summarize the nail distribution on the site, it appears that the assumption about how nails would cluster was correct. While there is indeed a tendency for nails to cluster near buildings, they can also be found in areas where other types of activities were taking place. Two examples are the 19th century garden with its composting pile and hot frames, and the 20th century burned deposit in the privy pit depression.

In both sheet trash and secondary trash deposits, some nails should be expected. They are not necessarily related to any specific activity taking place at their point of deposition, but arrived at that place in the same manner as the non-structural artifacts: they were tossed out the door or window, were dropped on the way to the trash receptacle, etc. These nails constitute a sort of "background noise" which must be taken into account when determining whether a special kind of activity, such as renovating a structure or building a compost frame, influenced the frequency of nails in a deposit. By eliminating those units which the author has demonstrated had unusually high frequencies of nails with discernable causes, it may be possible to determine a "normal" background frequency of nails.

The following units were eliminated from this consideration: N36W37.5 because it was suspected that the nails originated with wood burned for fuel in the house, then deposited in the depression formed by the sinking privy pit; N8W40 because of the disturbance caused by NPS activities at the site; 20th century deposits in N14W5 because it was hypothesized that high nail frequencies were influenced by the change of a door to a window; and N8W2 because of the extensive disturbance caused to Feature 12 trash deposits when the Old School was placed there. In addition, two deposits were eliminated from consideration not because of their high nail frequencies, but because of the high frequency of some other class which artificially drove down the nail frequency relative to the non-structural artifacts. The 20th century deposits in both N15E1.5 and N23W50.4 contained very high Beverage frequencies due to their locations next to public thoroughfares (see discussions on pages 49 and 75).

In the 20th century deposits, the ratio of nails to non-structural artifacts ranged from .09 to .23; in the 19th century deposits, this ratio ranged from .08 to .27, demonstrating the slightly greater variation in the previous century. However, these ranges are very close and suggest that in sheet trash deposits where no unusual circumstances affect nail deposit, nails should number one tenth to 1/4 the number of non-structural artifacts. In situations where the ratio is much higher or much lower, some activity or event caused the variation. Upon such leads, the archeologist can begin to interpret the history of the site through the artifacts.

It should further be noted that high densities of artifacts in general, such as in Feature 12, do not automatically imply high nail densities. In the case of the trash pit, nail densities were only moderate and may be related more to the fence separating the Bishop's House property from the hospital than the trash in the pit. The fact that nail density was relatively high south of the Priest's Residence, where non-structural artifact density was also high reinforces the author's contention that the latter deposit originated with a structure.

SPATIAL DISTRIBUTION OF WINDOW GLASS

The final class that will be discussed is the window glass. It was assumed that window glass would be most thickly concentrated near windows where glass sherds would fall when a window was broken. It was also assumed that windows were broken at the Bishop's House and Old School. In fact, the 1887 contract for repairs and renovations to the Bishop's House stipulated the following work element: "Glass replaced in all the frames of the house" (Mote 1981: 63). This implies that much of the glass was broken and needed replacement. Some of the early photographs show cracked or broken window panes. A photograph taken in 1867 (figure 51) shows a circular hole in the upper right pane on the right window;* an 1885 photograph (figure 2) shows at least two windows with some kind of other material replacing window panes. Note the window farthest to the left on the upper story of the front facade, and the eighth one from the left on the same floor. It is also possible that some of the panes are missing entirely, especially in the windows of the west gallery. It seems likely that, when a window was broken, most of the larger sherds might have been salvaged, but in grassy areas, many pieces would have been overlooked.

Figure 56 maps the spatial distribution of window glass sherds on the site. Data on the horizontal distribution of Shinkwin's glass was not available. Density figures on the east and west sides of the Russian Bishop's House were calculated from the total number of sherds found on each side divided by the area excavated. As can be seen, the total number of sherds found on the east and west sides was substantially smaller than was found around the Old School or on the north and south sides of the building. The low density on the west side can be understood by the fact that for its early life from 1843 to 1887, this area was covered by the original west gallery. The low density from excavations on the east side, which were outside of the original east gallery, is much harder to understand.

It seems most likely that the low number of windows on the east and west sides directly affected the low density of window glass. From 1843 to 1887, there were four windows and one transom above the door on the

*This hole may have been made intentionally to accommodate a fortuchka: a brass tube which provided ventilation when the windows were closed.



472- Sitka, Russo Greek Priests.

Figure 55: 1867 photograph of priests in front of the Russian Bishop's House. Looking north (Edward Muybridge, photographer. Sitka National Historical Park.)

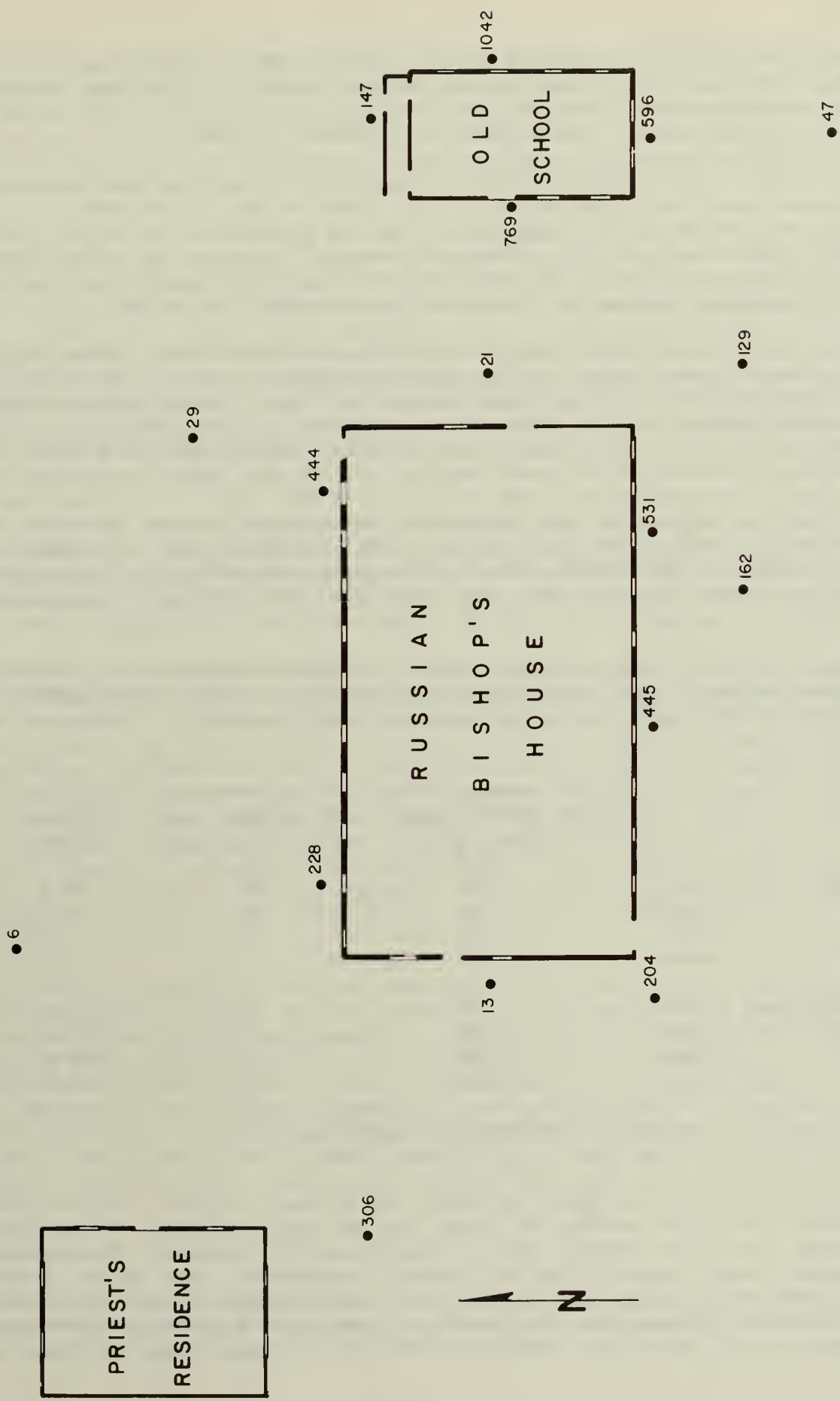


Figure 56 :Spatial distribution of window glass.

west side; on the east, there was only one window and one door transom. From 1887 to 1980, these numbers changed slightly. The west elevation had three windows, and the east had four. Two of the latter windows were later removed: one in 1897 and the other in 1930.

In contrast, the north and south sides of the structure had many more windows available to be broken. From 1843 to 1887, 22 windows and one door transom existed on the south side and 18 were on the north. After 1887, there were only 21 windows on the south side and 21 on the north. This difference in available glass probably explains the extreme difference in frequencies between the short and long sides of the building.

It is quite obvious that the Old School has a considerably higher density of window glass fragments than does the Bishop's House. The west side had six windows, with a seventh added in 1923. The east side contained five originally, with a sixth added sometime around 1908 and another removed in 1923. The south side contained four windows; the north side had only one above the west sloping roof of the north stairwell. This explains the considerably lower density of window glass in the north unit. If the one window on the north side broke, glass sherds fell down the roof to the west rather than to the north (see figure 33). It should also be noted that the window glass on the south side with only four windows is less dense than on the east and west sides with their many more windows.

Figure 57 shows the average number of window glass sherds per meter square on each side of each building, compared to the average number of windows found each year on each side of each building.

		Average number of Window glass sherds/m ²	Average number of windows per year	Sherds/ window
RBH -	North	336	20	16.8
	South	393	21	18.7
	East	21	3	7.0
	West	13	4	3.3
Old School -	North	147	1	147.0
	South	596	4	149.0
	East	1042	5	208.4
	West	796	7	115.7

Figure 57: Frequency distribution of window glass.

The third column on figure 52 gives the average number of window glass sherds found per window on each side of each building. This number varies from 3.3 sherds per window to 208.4 sherds. The highest numbers are around the Old School, suggesting that either broken windows were being cleaned up much more thoroughly at the Bishop's House than around the Old School or that the Old School windows were being broken much more frequently than the Bishop's House windows. It

has been suggested in the section on the distribution of non-structural artifacts that the high density of those artifacts around the Old School compared to the low density around the Bishop's House may be an indicator of the difference in socio-economic status of individuals living in the two buildings. It is possible that the great difference illustrated in this table could also be an indicator of the same thing.

It should also be noted that by far the greatest number of window glass sherds found in a meter square compared to the number of windows available to produce the glass is unit N15E1.5, on the east side of the Old School. It has already been proposed, in the section discussing this unit, that the very high frequency may have been caused by its proximity to the children attending the public school to the east. Whether breakage was intentional or accidental, the windows in the east side of the Old School would have been easy targets for errant balls or other missiles. Note also that the lowest frequency of sherds to windows is on the west side of the building, where the children would have had limited access.

Of final note is the window glass concentration south of the Priest's Residence. As can be seen on the density map (figure 51), there are considerably more sherds of window glass in that area than in other yard proveniences, especially those upslope from the Bishop's House. There are almost comparable frequencies south of the Bishop's House.

Contrasting the Priest's Residence 19th century deposits with the known trash deposit in Feature 12 clarifies the reasons for this. In Feature 12, the frequency of window glass compared to non-structural artifacts per meter square is 64 to 1276, or a ratio of 0.05. South of the Priest's Residence, the ratio is 1.16, or 281 sherds of window glass compared to 241 non-structural artifacts in the 19th century deposits. It seems fairly obvious the high window glass density in N23W50.4 relates to the proximity of windows in the 19th century rather than being a trash dump which happened to contain some window glass. This author suggests that when non-structural artifact density, nail density, and window glass density is likewise high, the deposit occurred in the proximity of a building.

In summary, it appears that the data support the assumption that window glass frequency is high in the proximity of windows. While this seems ridiculously obvious to most people, a high density of window glass in the absence of a standing structure can be explained when compared to areas where windows were known to exist at some point in time. In addition, it also appears that an high frequency of window glass could suggest a low socio-economic status of the inhabitants of the structure. Finally, it appears that some of the highest densities could have been caused by the public school children using the yards to the east of the Old School.

SUMMARY OF THE FAUNAL ANALYSIS

Dianne Lee Rhodes conducted a faunal analysis on the bone material found across the site. The following is a summary she prepared. The full analysis appears in Appendix A.

Of the 234 identifiable bones found in all units excavated, 95% (224) came from the Old School, and of these 148 or 63% from Feature 12. In addition, bones were concentrated towards the southeast section of the feature. Unit N8W0 contained a total of 103 bones (70% of the total bones in the feature), all of which were found in Levels 9-14, with the largest proportion in Level 11. Although the constant moisture in the lower levels helped preserve the bone, this factor alone cannot account for the wide difference in number when this unit is compared with an adjoining unit N8W1.

Generally the bones are in very poor condition, exhibiting a great deal of deterioration and loss of significant identifiable portions. A few deer and cow bones are intact enough to identify by genus and species; others, particularly the bird bone, can be identified only to the genus. Much of the material could be identified no more closely than Indeterminate Mammal or Indeterminate Bird. These groups of bone are further divided by the bone size/wall thickness so that materials from indeterminate mammals larger than deer could be kept distinct from smaller sized indeterminate mammals.

In the units around the Old School only two bones are identified positively as cow (Bos): one bone compares favorably (c.f.) with cow: and 18 bones are from mammals larger than deer ("cow" is used as a generic term for beef cattle). If we arbitrarily lump these three categories together, we can assume that these 21 bones represent butchered domestic animals. Using a similar assumption, we can combine bones identified as deer, Artiodactyla*--c.f. deer, and deer-sized indeterminate mammal. These 157 bones, 70% of the bones recovered from the Old School represent game animals. In addition, there are 35 bird bones from the Old School: 16% of the total bone collection. None of these bones compared favorably with the readily available chicken or domestic turkey in study collections. If we add these to the game bones we find that 86% of the faunal materials are probably from non-domesticated animals.

If the bones in Feature 12 represent an accumulation from the Russian period, the collection reflects a heavier reliance upon native game than documented historically by Golovin (Dmytryshyn and Crownhart-Vaughn 1979; Pierce and Donnally 1978).

It should be noted that although no sheep or goat bones were identified, there is the possibility that some of the Artiodactyla bones that compare favorably with deer, and the deer-sized indeterminate mammal bones might also be those of the mountain goat (Oreamnos americanus) whose adult size ranges from 150 to 300 pounds (Hall 1959: 1026). Mountain goats inhabit high rocky areas inland from the coast of southeastern Alaska. Meat may have been imported from these mainland areas during periods of heavy demand.

*Artiodactyla is the name of an order of quadrupeds. The term means "even toed." It includes such animals as deer, goats, pigs, cows, sheep and antelope.

A number of bones have knife cut marks on their surfaces and/or ends removed by sawing. The size and shape of these butchered bones is very similar to today's commercial cuts. Eight of the 21 cow/cow-sized bones have butchering marks (38%) while 25 of the 157 deer/deer-sized bones (16%) are butchered or cut. It should be noted that deer bone is smaller than cow and may not preserve as well; This may lead to biased recovery rates and less substantive identification of butchering practices.

Only one bone showed definitive evidence of carnivore gnawing and 2 were rodent chewed. Three bones are burned.

Although the minimum number of individuals has not been determined for this report, it is evident that there are at least several different individual deer, killed at various ages. Year-round use of wild game is indicated by the wide age ranges represented. This is consistent with other artifacts in the deposit which do not reflect any special season or short-term period of use.

SUMMARY

Twelve one meter square excavation units were placed around the Russian Bishop's House and Old School: two were located south of the Priest's Residence, three in the front yard of the Bishop's House, two in the back yard, four around the perimeter of the Old School, and one in the front yard of the Old School. When a significant feature was encountered on the south side of the Old School, three additional units were excavated to determine the east/west extent of the feature. Those excavations are mentioned briefly here and will be reported more fully in another volume.

In the front yard of the Russian Bishop's House, evidence of the bishop's garden was found. A fill-like zone (Stratum C in N4W22) about 20 cm below the ground surface, and about 22 cm thick appears to have been the annually cultivated soil. High nail frequencies in the 19th century garden deposit correspond to the historically reported use of compost piles and hot frames in this area. No obvious pathways or cultivation patterns were discernible from the distribution of non-structural artifacts in the front yard.

In the back yard, it was discovered that approximately 40 cm of fill had been added to the grade since the 1930's. This fill increased in depth towards the Bishop's House. In unit N28W15, the fill was 60 cm deep, but against the Old School it was only 40 cm deep.

In the northwest corner of the site, a privy pit was located. This pit centers approximately 14 meters north and 1 meter west of the northwest corner of the main structure of the Russian Bishop's House (this does not include the galleries). The privy was probably built in 1887 and removed before 1900 at which time the pit was filled. After some settling had occurred, the resulting depression was used to deposit burnt trash, including scrap lumber containing many nails.

Also in the back yard, in unit N28W15, excavations located a large post hole which probably held one of the timber posts supporting a water tower (figure 14). The water tower was probably the reservoir for the indoor plumbing added to the Bishop's House in 1904.

Interesting and unexpected evidence of a 19th century outbuilding was found to the south of the Priest's Residence. While no features were located, high window glass, nail, and non-structural artifact densities compare closely with those found next to the Bishop's House, indicating the proximity of a structure. Window glass thickness and the colors of the bottle glass suggest that the deposit formed in the 19th century. It was most likely an outbuilding associated with the Sipiagin House located somewhat further to the north and west. The structure was evidently torn down in the 19th century.

This deposit was covered with a wood plank platform in use after the 1940's.

Deposits around the Old School were more interesting and considerably more informative than those in the yards. The structure was constructed in 1897, and archeological evidence shows that up to 70 cm of fill was added to the site after construction. North of the building, the original ground surface was 1.05 meters below the 1981 surface; south of the building, it was 65 cm below present grade. This fill apparently extends almost out to the street. The one unit placed in the front yard of the Old School, NOW2, contains a 20 cm thick layer of this fill about 15 cm below the ground surface. It fills an east to west running trench which may have provided drainage for the site before the breakwater was built in 1895.

Below the 1897 fill and under the southeast corner of the Old School lay a seven foot square wood lined pit which may date back to the 1840's. The pit was filled with trash dating to the 1860's. It probably came from the Russian hospital located east of the Russian Bishop's House. Non-structural artifact distribution in the vicinity suggests that the trash was being brought from the rear door of the hospital, not from the Russian Bishop's House. The distribution of nails implies that a wood slat fence existed between the two buildings at the time the trash pit was being used. This fence can be seen in an 1867 photograph of the hospital (figure 51). The artifacts further suggest a connection with the hospital: 12.9% are medically related, 10.0% are for bulk storage, and 13.7% are from alcoholic beverages.

The twentieth century deposits around the Old School were not as exciting but certainly contained a great deal of information. Window glass frequencies were particularly high around this building, especially on the east and south sides of the structure. This high density can be attributed to the proximity of the public school after 1927, where children played in the school yard. Errant balls or outright vandalism probably contributed to the high breakage of window glass on the south and east sides of the structure.

Not only was the window glass density particularly high on those two sides of the building, but as a whole, window glass was much more frequent around the Old School than around the Russian Bishop's House. Even where the number of sherds found compared to the number of windows available to be broken is lowest, on the east side of the Old School, that number (113.7 sherds per window) is substantially higher than at the Bishop's House. The highest number of sherds found per available window at the latter structure is 18.7 on the south side.

Likewise, non-structural artifact density was particularly high around the Old School and considerably higher than the 20th century deposits around the Bishop's House. It is suggested by the author that the high window glass and high non-structural artifact density around the Old School may be a socio-economic indicator. The Old School became a low rent tenement about 1924 with very little maintenance provided. While not exactly prosperous, the Russian Orthodox Church continued to use the Bishop's House up until 1975. It is possible that the people living at the Bishop's House viewed yard cleaning and maintenance somewhat differently than did the tenants in the Old School, resulting in much higher artifact densities at the latter building. Artifact densities may also have been

affected by the way building occupants regarded NPS acquisition of the buildings.

A high nail density in N14W5 on the west side of the Old School probably resulted from the conversion of a door to a window in that location in 1923.

In addition to the specifics about activities taking place around these three buildings, artifact analysis yielded several additional types of information. Temporal analysis of bottle glass colors showed that this type of artifact can be a very useful dating tool on late 19th and early 20th century sites. A trend was observed that exhibited decreasing black and green glass frequencies, and increasing brown glass frequencies after the 1880's, and decreasing aqua colored glass frequencies after the 1920's. Clear glass frequencies appeared relatively stable through time. By measuring the relative frequency of each color of bottle glass, an estimation of deposit date could be made in the absence of other, more diagnostic artifacts.

A study of the spatial distribution of non-structural artifacts revealed that in the nineteenth century at the Russian Bishop's House, they tended to cluster 2 to 6 meters away from doorways. Artifact density was very low immediately in front of the doors. Overall density was higher along the backs of buildings than in the front. It is assumed that back doors were more often used for private, domestic matters and front doors for public or visitors' access. More artifacts would have passed in and out of the back doors than the front doors.

It was further found that, in a normal sheet trash accumulation, there was some correlation between non-structural artifacts and nails. The ratio of nails to non-structural artifacts in these types of deposits varied from 0.10 to 0.25. Substantial deviation from that range indicated that some special activity causing a preponderance of nails or non-structural artifacts had taken place.

Not surprisingly, it was found that window glass tended to be densest near windows. The absolute density, however, appeared to be dependent on the frequency with which windows were broken and how well the broken glass was cleared away afterwards.

Finally, it was found that Beverage Container frequencies, especially brown glass, and Nail frequencies were much higher in the deposits which have accumulated since NPS acquisition of the site. The nails can be understood in lieu of the construction activities taking place there since 1978. The beer bottle glass is less well understood, considering NPS restrictions on alcoholic beverages on its property. It may represent illicit behavior on the premises when there was no official presence.

Fully 85% of the bone found on the site was from wild game, not domestic animals. This implies a heavy dependence on locally obtained food, probably because of a recurring unavailability of supply. Several historic sources remark on the necessity for trading with the Tlingits for food (Dmytryshyn and Crown-Vaughn 1979, DeArmond 1979, Blascke 1842; Laufe 1961; Gibson 1976). Such a large percentage on a site that is predominantly 20th century in other respects implies a continued reliance

on game even into the 20th century. Better data will be available after the analysis of Feature 12 is complete in late 1984.

The findings just summarized could not have been known without the archeological investigations. Certainly we would not have known of the presence of the 19th century hospital trash pit until it was too late to retrieve the artifacts in a scientific manner. As analysis progresses on these items, it becomes increasingly apparent that a wealth of information on the everyday life of the Russians in America is waiting to be reported.

But what of the excavations in the yards? As the author pointed out at least once, the yard deposits were more often than not distressingly devoid of diagnostic artifacts; very few items of museum quality were recovered. But through these fragmented bits of everyday matter--window glass, nails, broken bottles, and even plastic--we come to a better understanding of ourselves and our recent predecessors. It struck the investigator time and again how similar the Russian deposits were to those found on other Euro-American sites she had excavated. The Russians of the nineteenth century appeared as European in their material culture as the Americans. The dependence of both nations on British, German, Spanish, and French imports is evident in the material culture found in the ground. There were differences; that cannot be denied. Yet the differences seem minor. The way a person of European descent dealt with a harsh environment on an isolated frontier amongst people of entirely different cultures was the same whether he was Russian or American. His response to his environment, such as the taking of wild game when he preferred domestic, and the tilling of largely unfertile soils can be seen in the relatively high percentage of deer and wild game bones, and evidence of composting piles. His response to the scarcity of supplies on an isolated frontier can be seen in his use of hand wrought instead of the more commercially available cut nails. But perhaps more importantly, his unconscious response to his advancing knowledge of his world can be seen in such things as the way trash accumulates away from doors instead of right in front of them as happened in the 18th century. It is this author's hope that the work done at the Russian Bishop's House has increased our understanding of those of us with a European heritage.

RECOMMENDATIONS

The excavations reported here were necessarily limited by the amount of funding available. At the time the research design was planned, it was not known that landscaping might eventually include the planting of several large, mature trees along the back property line. The archeologist worked closely with the landscape architect and specifications writers to ensure that holes dug for trees along the north side of the property would not impact known archeological resources, especially the 1887 privy pit. While not directly related to the period commemorated by the park, the privy contains significant scientific information and should be avoided in all future construction or digging projects around the house.

In addition, it was found that none of the historic photographs found to date show certain portions of the back yard. Antoinette Shalkop found references to late nineteenth century outbuildings which might be of interest to the historian and archeologist studying that time period. Vladimir Donskoi, head priest for the Southeast Alaska parishes wrote in 1894, "For the storing of the provisions a pantry was built outside and near it a shed for wood and a 'water closet'" (Donskoi 1894). Monk Anatoilii Kamenskii replaced Donskoi in 1895. He wrote several letters to Nikolai Ziorov, detailing events in the Sitka parish. He states that in 1896 a bath house (bania) had been built at the Bishop's House for \$100 (Kamenskii 1896). On September 4, 1898 the bania was lost through fire. All students and faculty had taken their baths that evening, and it burned at 2:00 a.m. Kamenskii reported that several items were lost in the fire: paddles, sails, old sleeping bags, ropes, barrels and other storage containers (Kamenskii 1898). Had the Feature 12 trash pit not been under the Old School, which was constructed in 1897, this author might have believed the wood lined pit to be the burned bania.

Because the fine photographic record of the Russian Bishop's House site during this time period does not show the wood shed, privy, or bania, it is suggested that they were all placed in the north central or northeast corner of the site which no photographs show. Admittedly, a building does appear behind the Old School in a 1919 photograph (figure 34). It is possible that construction of this structure destroyed any remains of those three outbuildings. It is even possible that this structure is the wood shed mentioned in the 1897 correspondence. If so, the bania was probably located further to the west.

For these reasons, caution is advised in excavating for tree planting in this area. It is recommended that an archeologist with the authority to redirect excavation for plantings be on site during landscaping activities. No other excavation below 40 cm below grade should be permitted along the back area of the site.

Salvage of the Feature 12 trash pit was recommended when it became obvious that construction of foundations for the Old School would impact the feature. These excavations were carried out in late June and early July, 1983. They will be reported in an upcoming volume.

It is believed that all other areas do not contain further archeological resources. The major scientific information that could be obtained from additional excavations would not add substantially to the information reported here. A map showing areas that are safe for construction and those that need to be monitored by an archeologist is shown in figure 58.

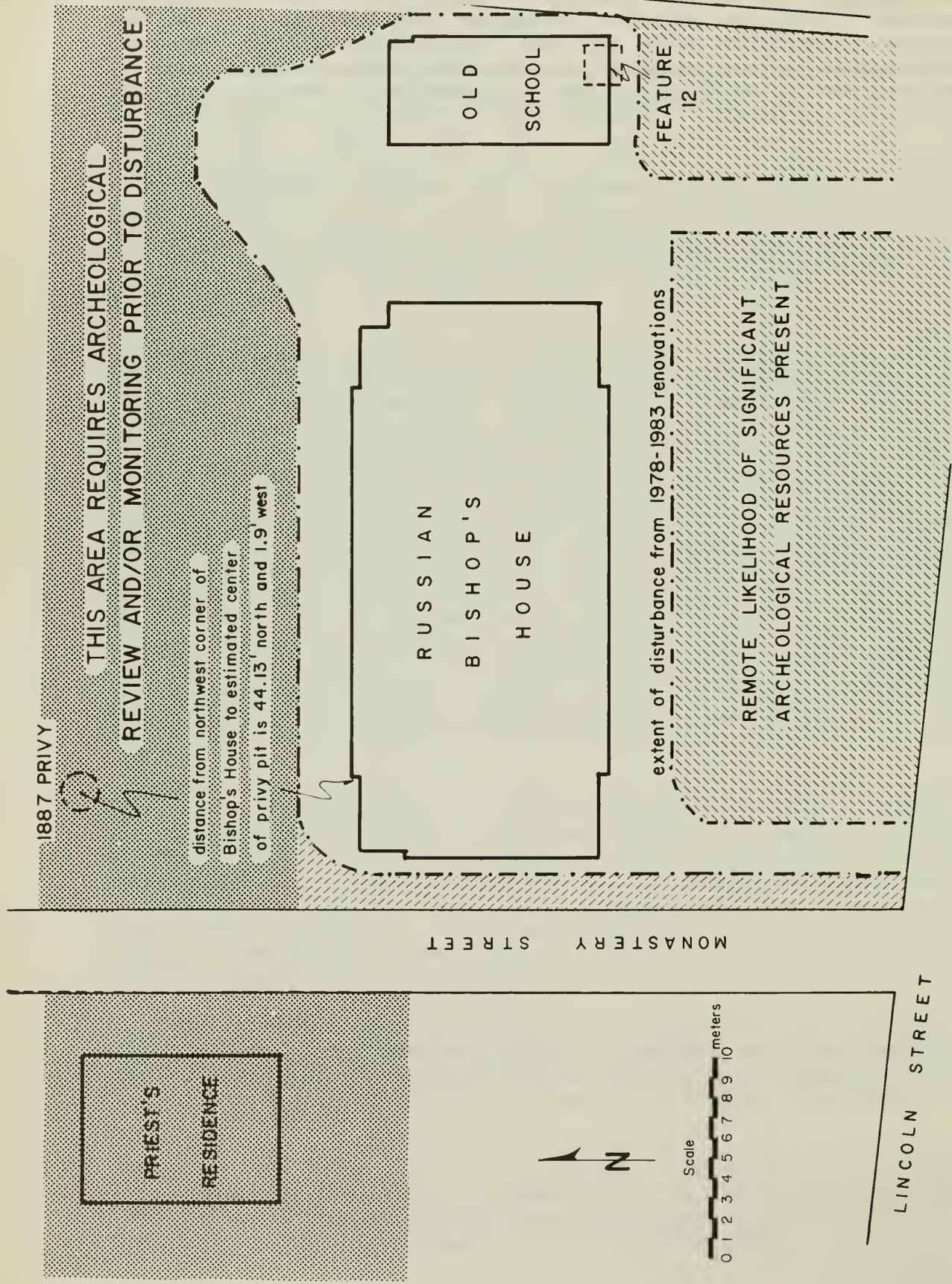


Figure 58: Archeological constraints on future soil disturbing projects.

ACKNOWLEDGEMENTS

No archeological project is the work of one person. Several people contributed substantially to this effort. The field crew consisted of Stephanie Ludwig, Allan Lewis, Andy Wagner, and Gail Johanson. Volunteers Mike Blue, David Rukeyser, and Young Hee Lewis were devoted, enthusiastic screeners. Allan Lewis cleaned and catalogued the artifacts; we regret that circumstances did not allow him to continue with the analysis. Marianne Musitelli did an outstanding job of taking up where Allan left off.

Historical architect Paul Cloyd did his field work for the Historic Structures Reports on the Old School and Priest's Residence at the same time we did ours; working with him was a pure joy. His input on site was substantial. Contract historian Antoinette Shalkop found several items in the Russian Orthodox Church records which were of use in the interpretation of the archeological material. I much appreciate her interest in the materials found under the Old School. Gene Ervine and Randy Conrad also provided valuable assistance.

The park staff was extremely helpful. I thank superintendent Ernie Suazo for his support, especially in arranging for volunteers, and Marilyn Knapp for keeping an eye open for documents on the Bishop's House and hospital. Gary Candalaria corrected several historical inaccuracies in the draft.

I am particularly grateful to Louise Brightman and Isabelle Miller of the Sitka Historical Museum, who both shared their vast knowledge of Sitka history with me.

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APPENDIX A
FAUNAL ANALYSIS
by
Dianne Lee Rhodes

INTRODUCTION

This preliminary report is based on faunal materials recovered from excavation of 14 units at the Russian Bishop's House and Old School, Sitka National Historical Park, Alaska, in the summer of 1981 and spring of 1983. A full description of the site, excavation procedures and excavated units and features can be found in Blee (1983).

It is expected that more related materials will be found in units excavated during the 1983 field season so some analyses standard to faunal reporting such as minimum number of individuals will not appear in this report but will be incorporated into the next report. This paper will give a general overview of the items found and suggest some possible systematic relationships for further examination at a later date.

Identification of faunal remains can provide important information, seldom available elsewhere, on the past behavior of human groups. Relevant environmental and economic data can also be assembled from study of what could be considered garbage since the deposition of these materials was done in a cultural context in a particular environment. These accumulated data allow us to make statements about past diet--reflecting food habits and customs, butchering methods, the economic base, trade, seasonality, length of occupation, availability of wild game or domestic animals, food storage and activity areas, and the presence of carnivores.

BIASES

Various factors can bias the kind, number/quantity and the preservation or quality of faunal materials found in a site; these operate before, during and after deposition, and during recovery. Smith (1979: 3) presents a schematic view of the various cultural factors involved in formation of a faunal assemblage. These factors include social organization, settlement patterns, living and activity areas, population density, food supply, food selection, technology, environment, and religion. Many of these factors influenced the assortment and distribution of artifacts found at Sitka. For example, food preferences and traditional consumption patterns play a strong role in the food selection process. Several fairly different cultural groups (Russian clergy and medical personnel, U. S. Army personnel, Presbyterian missionaries, and Native Tlingit and Aleuts) were present in Sitka within a relatively short time period. Golovin (Dmytryshyn and Crownhart-Vaughn 1979: 36 et seq) discusses the large quantities of fresh, salted and dried fish used by the Natives and the Russian American Company. Along with the fish, salt-cured meat imported from Russia or California and fresh chamois/wild sheep (presumably Sitka black-tailed deer) were documented as the primary protein sources for the Russians. Many of the imported foods--salt pork, filleted fish and boned salt beef brisket--would leave little or no trace in the archeological record.

Golovin states that there were a few pigs and chickens kept in the Sitka area but the "meat is disgusting" since they usually eat fish and "have a bad flavor" (Dmytryshyn and Crownhart-Vaughn 1979: 37). He also indicates that although cattle were dispersed among the Kolosh (Tlingit), the program to build up herds was never successful. This was due to the harsh environment and the reluctance of the Native populations to become cattlemen.

Economic factors also affect the distribution of faunal materials. The lower classes received more salt fish and less fresh game and imported beef than did the high ranking officials of the Russian American Company. Transportation costs and delays made the shipment of fresh domestic meat difficult and, at times, virtually impossible.

Sitka residents traded and bartered with Native groups for game even though such activities were limited by the Russian American Company. Thus a large part of the meat supply was erratic; it was dependent upon game populations, seasonality, and relationships between the Indians and the Russians.

It is likely that larger game animals were field processed, leaving behind the head, entrails, etc. A tannery was built in the early 1840's to process "goat skins" (presumably deer skins) to use instead of imported Russian leather (Pierce and Donnally 1978: 374). It is probable that there also were areas for processing of game and fish although they are not mentioned in the sources used for this paper.

Golovin does indicate that "there are . . . 14 cow herds, stockmen, etc., and 73 men who work as carpenters, coopers, tanners, meat and fish salters . . ." in New Arkhangel (Dmytryshyn and Crownhart-Vaughn 1979: 39).

It is likely too, that smaller game (primarily water fowl) would be brought into Sitka whole. The final cleaning and processing might then be accomplished by the consuming household, leaving proportionately more body parts of small game on the site than of larger mammals.

Cooking and food preparation methods are important factors that determine the condition and preservation qualities of bone. Roasting over an open fire or in a hot oven, boiling, and pressure cooking can contribute to bone degeneration. Bone is also destroyed by cracking to procure marrow or to make bone grease.

During and following deposition, a variety of other factors, both environmental and cultural, can act upon the bones to increase or decrease relative proportion of bone types and quality. For example, construction activities in 1897 may have exposed the bone or otherwise damaged or moved it.

The ever-present dogs in an Alaskan village can be important in the artifact selection process. Often certain portions of a cut of meat or a carcass are given to or left for household animals. This differential consumption biases both the percentages of bone types and the spatial distribution of items in a site. Analysis of the Sitka materials in terms of

carnivore damage is problematical. A number of the bones are from immature individuals: these have lost the epiphysis. Other small, fragile bones are badly deteriorated or missing. These are the same areas/bones that a dog will gnaw away first. For this reason, only those bones that clearly show the characteristic curved tooth marks and punctures, often in association with spiral fractures, are listed as carnivore chewed. Other fragmented items are not so listed because of the multiple factors that may have caused their deterioration.

Occasionally skeletal materials are not a result of human or carnivore activities but are due to natural deposition e.g., when an animal dies or is buried on the spot. This is generally indicated by the presence of most/all body parts within a fairly small area.

While in the ground, bones are subject to a variety of factors affecting their preservation. One author (Smith 1979: 16) indicates that "bone is not preserved in soil with a pH of less than 6.3"; Feature 12 soils have a pH of about 5.9. However, this feature was apparently very wet throughout most of the past century, thus tending to preserve the bones by keeping them constantly waterlogged. Corrosion from metal items present in the feature produced discoloration and salts on some bones. Generally, bone and other organic materials immediately adjacent to copper artifacts were exceptionally well preserved.

Worm action, roots and rodents can also damage bone. For example, a small root had grown completely through a deer ulna found in the 1983 test lot. Rodents can also seriously bias the archeological record through transport and consumption of bone. No rodent burrows were noted in the site, but a few of the bones show rodent damage which probably occurred while the bones were still on the ground surface.

Recovery methods can also skew the artifact assortment. Water screening through 1/4" mesh was used to recover artifactual materials from this site. It is probable that this type of screen substantially increased the percentage of bone recovered although tiny bones can still be lost through this size mesh. Water screening is generally less destructive to fragile materials than other methods.

Although bone was used quite routinely during the nineteenth century for handles, tools and buttons, there is no evidence from this site of any such secondary use.

METHODOLOGY

On site, bones were bagged immediately in air-tight plastic bags after removal from the screen. Following shipment and receipt at the lab, they were cleaned with tap water and a soft brush, and dried at room temperature on screened racks. After numbering and cataloging, they were bagged for analysis and, later, storage.

FAUNAL ANALYSIS

Bones were identified using comparative materials housed at the U. S. Fish and Wildlife Laboratory, Fort Collins, Colorado, and the Colorado Archaeological Society (CAS) Bone Laboratory, Denver. Anne Sands (CAS) and Elaine Anderson provided assistance and advice. Dr. Anderson identified a number of the bones.

Bones were grouped by probable genus/species and body part for the analytic process. Unless otherwise noted, numbers of bones are based upon fragments, not whole bones. The atlas and axis are defined as cervical vertebrae. Wherever they could be determined, the following features are noted: the body part, side (right/left), bone section (distal, proximal, mid-section), age, sex, and position. Special notes were made on burning, processing and carnivore or rodent damage. Aging of specimens was based upon tooth eruption, cementum buildup, tooth wear, epiphyseal fusion of long bones, antler development and quality of bone surface (surfaces of older bones are rougher and more sculptured). Some general age classifications (immature, sub-adult and adult) are partially based on body part size since younger animals have smaller bones of slightly different proportions, than mature animals of the same species. However, size is a relatively poor indicator of developmental stage. There is a wide variation in adult skeletal size and body weight from sexual dimorphism, availability of food, and from individual variation within each species. For example, the October live weight of adult Sitka black-tailed deer ranges from about 80 pounds for does to 100 pounds for bucks. Field dressed does average about 65 pounds and bucks less than 100 pounds (Johnson 1984). Bone dimensions vary in a similar manner.

Several broad categories are used for grouping bone not identifiable by genus/species. Scrap bone, which was usually small and well fragmented, was counted and weighed. Items that could be identified as to general body part are grouped under one of 5 general categories: Indeterminate mammal, larger than deer; indeterminate mammal, deer sized; indeterminate mammal, dog sized; indeterminate mammal, rabbit sized; and indeterminate bird, duck/goose sized. No fish or reptile bone was recovered from the site.

Some materials were broken down even further: e.g., Artiodactyla, c.f.* deer; Artiodactyla, c.f. cow; and canis, larger than coyote. A number of bird bones were classed only to the genus level but further species comparisons noted in the discussion. These divisions were: Bay ducks (Aythya); Surface-feeding ducks (Anas); Sea Ducks (Melanetta); Geese (Branta); Grouse (Bonsa), and Eagles (Accipitridae).

Mammals present in the Sitka area are taken from a list in George S. Smith's (1974) book entitled The Zooarchaeology of Alaska (figure 58). This book lists those species present today in the general area of Sitka, including the southeastern Alaska mainland. Birds have not been included in this enumeration due to the extensive lists which consist of

*compares favorably with

Figure 59: SCIENTIFIC NAMES OF ALASKAN MAMMALS

Family SORICIDAE

Common or masked shrew
Sorex cinereus

Gray wolf
Canis lupus

Arctic fox
Alopex lagopus

Family LEPORIDAE

Snowshoe hare
Lepus americanus

Red fox
Bulpes fulva

Family SCIURIDAE

Hoary marmot
Marmota caligata

Arctic ground squirrel
Citellus parryi

Red Squirrel
Tamiasciurus hudsonicus

Northern flying squirrel
Glaucomys sabrinus

Family URSIDAE

Black bear
Ursus americanus

Grizzly bear
Ursus arctos

Polar bear
Thalarctos maritimus

Family CASTORIDAE

Beaver
Castor canadensis

Family MUSTELIDAE

Pine marten
Martes americana

Short-tailed weasel or ermine
Mustela erminea

Family CRICETIDAE

Meadow vole
Microtus pennsylvanicus

Muskrat
Ondatra zibethicus

Mink
Mustela vison

Wolverine
Gulo gulo

River otter
Lutra canadensis

Family ERETHIZONTIDAE

Porcupine
Erethizon dorsatum

Sea otter
Enhydra lutris

Family CANIDAE

Coyote
Canis latrans

Family FELIDAE

Lynx
Lynx canadensis

Family OTARIIDAE

Alaska fur seal
Callorhinus ursinus

Northern seal lion
Eumetoplas jubata

Family PHOCIDAE

Harbor seal
Phoca vitulina

Elephant seal
Mirounga angustirostris

Family CERVIDAE

American elk (introduced)
Cervus canadensis

Black-tailed deer
Odocoiteus hemionus sitkensis

Moose
Alces alces

Family BOVIDAE

Mountain goat
Oreamnos americanus

*Dall sheep
Ovis dalli

Domestic cattle
Bos tarus (introduced)

Family ZIPHIIDAE

Stejneger beaked whale
Mesoplodon stejnegeri

Family PHYSETERIDAE

Sperm whale
Physeter catodon

Family MONODONTIDAE

Beluga
Delphinapterus leucas

Family DELDAE

Harbor porpoise
Phocoena vomerina

Family ESCRICHTIDAE

Gray whale
Eschrichtius glaucus

Family BALAENOPTERIDAE

Rorqual or Sei whale
Balaenoptera borealis

Blue whale
Sibbaldus musculus

Humpback whale
Megaptera novaeagliae

*The normal range of Dall sheep is northwest of the Sitka area.

migratory birds as well as natives. Although nineteenth century trapping, trading and settlement changed the distribution and size of a number of animal populations, it is assumed that most of the fauna represented in the excavation would also be available in the area today. Sitka black-tailed deer are common although populations may vary greatly from year to year. Cyclic fluctuations in Alaskan deer populations are caused by several factors including winter weather patterns (Merriam 1970).

DISCUSSION

As discussed in the main portion of this report, seven units were excavated around the Old School; all seven contained bone. Two units in the Bishop's House front yard held bone, as did the 20th century deposits south of the Priest's Residence. Of particular interest are those 3 units containing Feature 12. Over half of the bone found in all units came from this feature.

Russian Bishop's House Front Yard

N8W40 held one deer-sized rib fragment in Level 2; one cut long bone (larger than deer) and one small mammal sternum fragment were found in Level 3. Another large long bone from Level 3 compared favorably with cow bone.

N4W12, located at the southeast corner of the Russian Bishop's house contained only 3 bones. All were long bone fragments of a deer sized, indeterminate mammal. Two bones were found in Level 4 and one in Level 6.

Priest's Residence

Unit N23W51.4

Bone was also sparse in this unit with a total of only three bones from Levels 1 and 2: Level 1 contained one cut femur fragment (*Artiodactyla*, c.f. deer) and Level 2 contained one deer sized long bone fragment, and one right pelvis fragment of a deer.

Old School

South Side

Unit N8W2 lay west of Feature 12. Level 1 held one cut long bone from an indeterminate mammal larger than deer, two pieces of scrap bone (2.5 grams) and one deer radius fragment that had been cut and carnivore chewed. Level 2 had only two scrap bones (1.5 gm.) Level 3 had a long bone fragment of a deer-sized mammal and fragments of the right scapula (1), metatarsal (1) and right tibia (1) of a deer. The tibia was cut and showed evidence rodent chewing.

A large bone from this level has been identified as the remnant of the right humerus of a sub-adult cow (Bos tarus) probably cut for a large arm roast. Level 4 had scrap bone weighing 6.75 grams--also from a large mammal--and one cut right humerus of a deer. Bones in Level 6 were: one rib fragment from an indeterminate mammal larger than deer, one left humerus fragment from a deer-sized mammal and two portions of the right pelvis (Artiodactyla(s), c.f. deer). A fragment of a right pelvis was found in Level 7 (deer).

West Side

N14W5 contained 5 bones from a deer-sized mammal(s): a bone fragment with cuts and rodent chewing; a portion of a scapula; two rib fragments; and a phalanx. Two rib fragments from an Artiodactyla (c.f. deer) were also present. Level 3 had only five long bone fragments; one deer-sized mammal bone was cut. There were similar findings in Level 4: two long bones, one cut, and one cut left tibia from an Artiodactyla, c.f. deer. Level 8 had only one large mammal rib fragment and scrap weighing two grams.

North Side

Level 1 of N20W1 had a portion of a cut scapula (left) from a large Artiodactyla (c.f. cow) and Level 2 had a fragment of a thoracic vertebrae (c.f. deer) and a carnivore-chewed part of a sub-adult sacrum (deer). Level 3 contained one cut long bone (deer-sized), four teeth (Artiodactyla, c.f. deer), one left tibia and one left calcaneum (deer), one long bone and one sternum from an indeterminate small mammal, and two long bone fragments and one vertebrae from an indeterminate bird (duck/goose size). Two bird bones from this level did, however, correspond closely with comparative skeletons. One skull (cut?) was probably grouse (c.f. Bonasa umbellus or Dendragapus obscurus), while one right femur was close to goose (Branta) in size and configuration.

Level 4 of this unit had a cut rib, cut right pelvis and scrap (2.0 gm) from a large mammal. The pelvis was identified as cow (Bos tarus). Deer-sized bones included one long bone and one rib. Level 5 had more heavy bone; bone scrap (1.75 gm) and one long bone fragment. Two long bone fragments from an artiodactyla (c.f. deer) and a rabbit-sized mammal were also present. A phalanx, (c.f. deer) was the only bone in Level 6, and a cut rib, larger than deer, from Level 7. Two long bones, one larger than deer (cut) and one deer sized came from Level 11.

East Side

Overall there were 15 bones in N15E1.5. One was an unidentified small mammal or bird long bone fragment from Level 4 and the other 14 (4 cut) were rib bones from an Artiodactyla(s) (deer sized) found in Level 1.

Feature 12

N8W0, Levels 10-14

The upper part of the feature contained a single tooth and a portion of a deer skull/petrosa. The skull was probably from a juvenile Sitka black-tailed deer; it was thought to be a male since the bony horn pedicel was present.

Level 11 had the largest concentration of faunal materials in this unit. There were 2 long bone fragments and 3 pieces of rib from an indeterminate mammal larger than deer. One of these ribs had been cut as for short ribs and one was chewed by a carnivore. The following bones are from Indeterminate deer-sized mammals, Artiodactyla, c.f. deer, and Sitka black-tailed deer:

- Skull (7)
- petrosa (1)
- left maxillary (1)
- left mandible (1)
- right mandible (3)
- individual teeth (5)
- assorted long bone fragments (9)
- unidentified vertebrae (7)
- cervical vertebrae (5)
- thoracic vertebrae (2)
- lumbar vertebrae (2)
- caudal vertebrae (1)
- right scapula (2)
- ribs (2)
- left humerus (1)
- right radius (3)
- left femur (3)
- left tibia (5)
- right tibia (2)
- metatarsal (1)
- phalanges (1)
- left astragalus (1)
- right pelvis (3)
- calcaneum (4).

The only major skeletal parts not represented are the sternum, ulna, fibula, carpal, sesamoid, naviculo-cuboid and sacrum. All age groups are represented in this collection of bone from Level 11.

Several bones of the lower leg are under-represented in this collection, probably due to butchering practices where the lower leg is used as a support to carry or hang the dressed animal, then discarded or given to dogs when butchering is complete. Although the condition of most of the bone precludes a clearly defined statement regarding butchering, several indicators point to a fairly modern methodology to cut the bone and knives to separate the meat from the bone. For example, spinal processes are consistently missing, ribs are cut, and pieces of long bones lack the spiral breaks and cracks which came from predator or prehistoric

consumption. Some long bones exhibit the smooth, even cuts characteristic of modern butchering. One pelvis had cut marks around the acetabulum area. Insofar as can be determined, cut pieces conform rather well to contemporary charts of retail cuts for beef.

A scattering of smaller bones completes the association from Level 11, with long bone fragments and rib pieces from small and medium sized indeterminate mammals. Seventeen bird bones were recovered from Level 11. Most are unidentified as to genus, but size ranges between duck and goose for eight long bones, one sternum, one radius, one femur, two tibiotarsus, and one phalanges. Bones identified to genus include the left humerus and a portion of the pelvis from a bird which compares favorably with the bay feeding duck known as the scaup (Aythya affinis). The left half of the furcula from a bird comparing favorably with a white winged scoter, a sea duck, (Melanetta fusca) was also among the bones in this level. All of the above faunal species apparently were available in the Sitka area in the nineteenth century.

N8W1, Levels 9-12,

Bone in the upper part of the feature was badly decomposed and unidentifiable as to genus or body part so it was treated as bone scrap (3 pieces, 2.75 gm).

Only one long bone fragment of a medium-sized indeterminate mammal was found in Level 10. Like unit N8W0, Level 11 held most of this unit's modest amount of bone. In this level, two bones were classed in the indeterminate mammal category--one skull fragment from an animal larger than a deer and the other a fragment of deer-sized long bone. Three teeth (two from juveniles) were identified as artiodactyla (c.f. deer). A portion of a cervical vertebrae (deer) was also found in this level. One fragmented long bone, deer sized, was found in Level 12.

N8.5W1.5

In the first level were portions of vertebrae and the rib of a medium/small mammal, and in Level 3, vertebrae from an indeterminate bird of duck/goose size. Two more vertebrae of different birds (similar in size) were found in Level 4. Level 5, the first level in Feature 12, contained only one small scrap bone weighing less than 0.25 grams. Level 6 contained a portion of the right tibia of a mammal larger than a deer. This bone will require further analysis since its size and configuration suggest a seal bone. Also found in this level were the left humerus and right femur of an Artiodactyla (c.f. deer) and two pieces of scrap (2 grams). A piece of long bone (deer sized) was the only bone in Level 7.

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APPENDIX B: ARTIFACT INVENTORY

The following is a complete inventory of all artifacts listed by unit and level. It has been included so the park may know the extent of its collection, and for other archeologists in doing comparative work.

Sitka NHP
Front Yard N4W22
Artifact inventory

DOMESTIC	L.1	L.2	L.3	L.4	L.5	L.6	Total
<u>Food Containers</u>							
canning jar, lid, clear glass	-	-	1	-	-	-	1
sherds, glass							
aqua	-	2	1	2	-	-	5
clear	-	2	8	5	-	-	15
light green	-	-	2	3	-	-	5
wrappers							
foil	-	1	-	-	-	-	1
plastic	-	-	1	2	-	-	3
Total Food Storage	-	5	13	12	-	-	30
<hr/>							
<u>Beverage Containers (sherds)</u>							
Bottle, stoneware							
buff, beer bottle type	-	-	1	-	-	-	1
grey, mineral water type	-	-	1	-	-	-	1
Glass							
amber	-	1	-	1	1	-	3
"black"	1	1	2	1	1	-	6
green, bright	-	3	6	1	-	-	10
green, dark	1	-	2	1	-	-	4
green, olive	-	2	25	6	1	-	34
Total Beverage containers	2	7	37	10	3	-	59
<hr/>							
<u>Food Serving</u>							
Cup, porcelain, undecorated rim frag	-	-	1	-	-	-	1
plate, creamware, undecorated rim frag	-	-	2	-	-	-	2
sherds							
creamware							
polychrome painted	-	-	1	-	-	-	1
undecorated	-	-	2	6	-	-	8
pearlware							
flow, brown	-	-	1	-	-	-	1
transfer, green	-	-	2	-	-	-	2
undecorated	-	-	2	6	-	-	8
whiteware							
painted, blue	-	-	2	-	-	-	2
transfer, brown	1	-	1	-	-	-	2
transfer, blue	-	2	7	-	2	-	11
makers mark	-	-	1	-	-	-	1
transfer, green	-	-	2	1	-	-	3
transfer, red	-	-	1	-	-	-	1
undecorated	-	3	15	1	3	-	22

Sitka NHP
Front Yard N4W22
Artifact inventory

DOMESTIC (con't.)	L.1	L.2	L.3	L.4	L.5	L.6	Total
yellow ware, undecorated	-	-	1	-	-	-	1
porcelain							
painted, blue	-	-	1	-	-	-	1
painted, polychrome	-	-	1	-	-	-	1
undecorated	-	-	1	1	1	-	3
Total Food Serving	1	5	44	15	6	-	71

<u>Food Remains</u> , peach pit	-	-	-	-	1	-	1
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<u>Pharmaceutical</u> , panelled aqua glass	-	-	8	-	-	-	8
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TOTAL DOMESTIC ARTIFACTS	3	17	102	37	11	-	170
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STRUCTURAL ARTIFACTS

<u>Window Glass</u>	7	34	58	42	19	2	162
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<u>Nails</u>							
cut	-	1	1	2	3	-	7
wire	2	3	11	2	27	2	47
indistinguishable	-	-	-	-	3	-	3
Total Nails	2	4	12	4	33	2	57

<u>Utilities</u> , lighting and electrical							
insulated wire	-	-	-	1	-	-	1
lamp glass, clear	-	1	-	-	-	-	1
Total Utilities	-	1	-	1	-	-	2

<u>Hardware</u> , ferrous strap	-	-	2	-	-	-	2
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TOTAL STRUCTURAL ARTIFACTS	9	39	72	47	52	4	223
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Sitka NHP
RBH Front Yard N4W22
Artifact inventory

PERSONAL ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	Total
<u>Arms</u> , gunflint	-	-	1*	-	-	-	1
<u>Clothing</u> , button, prosser	-	1	-	-	-	-	1
<u>Other Personal</u> , coin 1940 nickle	-	-	1	-	-	-	1
TOTAL PERSONAL ARTIFACTS	-	1	2	-	-	-	3
ACTIVITIES ARTIFACTS							
<u>Metal Working</u> , slag	-	1	1	6	-	-	8
UNCLASSIFIABLE ARTIFACTS							
Ferrous lumps	5	-	24	4	3	-	36

Sitka NHP
RBH Front Yard N8W40
Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Food Storage</u>													
can fragments, "tin"	-	-	-	-	-	-	-	-	-	4	10	-	14
canning jar, aqua glass	1	-	-	-	-	-	-	-	-	-	-	-	1
sherds, glass													
aqua	-	2	-	-	2	2	-	-	-	-	1	-	7
embossed	-	-	-	-	-	1	-	-	-	-	-	-	1
clear	7	3	2	5	2	5	-	1	6	-	1	-	32
light green	-	-	-	-	-	1	-	-	-	-	-	-	1
wrappers													
foil	-	3	2	1	1	-	-	-	-	-	-	-	7
plastic	-	2	-	2	-	1	-	-	-	-	1	-	6
Total Food Storage	8	10	4	8	5	10	-	1	6	4	13	-	69
<u>Beverage Containers</u>													
Bottle, top, beer, brown glass													
crown finish	1	-	-	-	-	-	-	-	-	-	-	1	2
closure, aluminum pull tab	-	-	1	-	-	-	-	-	-	-	-	-	1
sherds, glass													
amber	-	-	-	-	-	1	-	-	-	-	-	1	1
"black"	-	-	-	-	1	-	-	-	-	-	1	-	2
brown	10	4	2	1	1	-	-	-	1	-	-	-	19
bright green	-	-	-	-	-	-	-	-	-	-	1	-	1
dark green	-	-	2	-	-	-	-	-	-	-	-	-	2
olive green	-	1	-	2	-	1	-	-	-	-	-	-	4
Total Beverage	11	5	5	3	2	2	-	-	1	-	2	1	32
<u>Food Serving</u>													
Ceramic Sherds													
coarse earthenware													
red, thin unglazed	1	-	-	-	1	-	-	-	-	-	-	-	2
buff, unglazed	-	-	-	-	3	1	-	-	-	-	-	-	4
creamware, undecorated	-	-	-	3	-	-	-	-	-	-	-	-	3
pearlware, flow brown	-	-	-	-	-	1	-	-	-	-	-	-	1
whiteware													
transfer, brown	-	-	-	1	-	-	1	-	-	-	-	-	2
transfer, blue	2	-	-	3	-	-	-	1	-	2	1	-	9
undecorated	2	1	1	2	1	-	1	1	-	1	-	-	10
stoneware, white	-	-	-	-	1	-	-	-	-	-	-	-	1
porcelain													
brown glazed	-	1	-	-	-	-	-	-	-	-	-	-	1
undecorated	-	-	-	2	-	-	-	-	-	-	-	-	2
Glass sherds													
opaque white, (milk)	1	-	2	-	1	-	1	-	-	-	-	-	5
Total Food Serving	6	2	3	11	7	2	3	2	-	3	1	-	40
<u>Food Remains</u>													
Bone													
Cow, long bone	-	-	1	-	-	-	-	-	-	-	-	-	1
large mammal, long bone	-	-	1	-	-	-	-	-	-	-	-	-	1
mammal, unknown size, rib	-	1	-	-	-	-	-	-	-	-	-	-	1
Total Food Remains	-	1	2	-	-	-	-	-	-	-	-	-	3
<u>Pharmaceutical</u>													
Bottle, clear prescription	-	-	-	-	-	-	-	-	-	-	-	1*	1
sherds, blue glass	-	1	-	-	-	-	-	-	-	-	-	-	1
Total Pharmaceutical	-	1	-	-	-	-	-	-	-	-	-	-	2
<u>Furnishings, flowerpot, cer.</u>													
	4	2	-	-	-	-	-	-	-	-	1	-	7
<u>Housekeeping</u>													
red plastic broom bristle	-	-	-	1	-	-	-	-	-	-	-	-	1
TOTAL DOMESTIC	25	23	16	23	14	14	3	3	7	7	17	2	154

Sitka NHP
RBH Front Yard N8W40
Artifact inventory

STRUCTURAL ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Window Glass</u>													
plain	7	18	26	24	21	48	21	14	10	5	4	5	203
plate	-	-	-	-	-	-	-	1	-	-	-	-	1
Total Window glass	7	18	26	24	21	48	21	15	10	5	4	5	204
<hr/>													
<u>Nails</u>													
wire	9	4	8	4	7	2	4	4	4	3	-	1	50
cut	3	-	1	-	1	4	-	2	2	1	1	-	15
forged	-	-	-	-	-	-	1*	-	-	-	-	-	1
indistinguishable	-	2	2	3	2	5	3	2	1	-	-	-	20
wood pegs	1*	-	1*	-	-	-	-	-	-	-	-	-	2
Total Nails	13	6	12	7	10	11	8	8	7	4	1	1	88
<hr/>													
<u>Materials</u>													
linoleum	-	-	-	4	1	-	-	-	-	-	-	-	5
tar paper	5	-	-	-	-	-	-	-	-	-	1	-	5
Total Materials	5	-	-	4	1	-	-	-	-	-	-	-	10
<hr/>													
<u>Utilities</u>													
lighting and electricity													
light bulb glass	1	-	-	-	-	-	-	-	-	-	-	-	1
lamp glass	-	3	1	-	-	-	3	1	1	1	1	-	11
insulated wire	-	-	1	-	-	-	-	-	-	-	-	-	1
sewer, ceramic pipe	-	-	-	-	-	-	-	-	-	1	-	-	1
Total Utilities	1	3	2	-	-	-	3	1	1	2	1	-	14
<hr/>													
<u>Hardware</u>													
band, ferrous, narrow	-	1	-	-	-	-	-	-	-	-	-	-	1
bolt	-	-	1	-	-	-	-	-	-	-	-	-	1
wire, ferrous, twisted	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Hardware	-	1	2	-	-	-	-	-	-	-	-	-	3
<hr/>													
TOTAL STRUCTURAL	26	28	42	35	32	59	32	24	18	11	6	6	319

Sitka NHP
RBH Front Yard N8W40
Artifact inventory

PERSONAL ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Clothing</u> , buttons													
bone, 3 hole	1	-	-	-	-	-	-	-	-	-	-	-	1
composition, white 2 hole	-	-	-	1	-	-	-	-	-	-	-	-	1
glass, dark blue, 4 hole	-	-	-	1	-	-	-	-	-	-	-	-	1
prosser, white, 4 hole	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Clothing	1	-	1	2	-	-	-	-	-	-	-	-	4
<u>Leisure time</u>													
cigarette filter													
fiber	-	-	-	-	-	1	-	-	-	-	-	-	1
plastic	-	-	-	-	-	-	1	-	-	-	-	-	1
ball clay pipe bowl fragment	-	-	-	1	-	-	-	-	-	-	-	-	1
toy wheel, rubber	-	-	-	-	-	-	-	-	-	1	-	-	1
Total Leisure Time	-	-	-	1	-	1	1	-	-	1	-	-	4
<u>Grooming and Hygiene</u>													
paper towel	-	2	-	-	-	-	-	-	-	-	-	-	2
TOTAL PERSONAL	1	2	1	3	-	1	1	-	-	1	-	-	10
<u>Education</u>													
slate pencil	-	-	-	-	1	-	-	-	-	-	-	-	1
slate tablet fragment	-	-	-	-	-	-	-	-	1	-	-	-	1
Total Education	-	-	-	-	1	-	-	-	1	-	-	-	2
<u>Medical</u> , thermometer, glass	-	-	-	-	-	-	-	-	-	-	1	-	1
<u>Military</u> , grape shot 1"	-	-	-	-	-	-	-	-	1	-	-	-	1
<u>Storage</u> , styrofoam packing	-	-	1	-	-	-	-	-	-	-	-	-	1
TOTAL ACTIVITIES	1	-	1	-	1	-	-	-	2	-	-	-	5
UNCLASSIFIABLE													
cinders	-	-	-	-	-	-	-	-	2	-	-	-	2
ferrous lumps	-	-	2	-	3	3	5	2	4	-	-	-	19
plastic	-	-	-	-	-	-	-	1	-	3	-	-	4
shell	-	1	-	2	1	-	-	-	-	-	-	-	4
Total unclassifiable	-	1	2	2	4	3	5	3	6	3	-	-	29

Sitka NHP
RBH Front Yard N4W12
Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	Total
<u>Food Storage</u>											
bottles, bases, clear glass	-	-	-	-	-	2	-	-	-	-	2
sherds, glass											
aqua	1	1	-	1	-	5	6	-	-	-	14
clear	1	4	3	1	5	1	10	1	-	-	26
light green	1	-	-	-	1	-	-	-	-	-	2
wrappers											
foil	-	-	-	-	1	2	-	-	-	-	3
plastic	-	1	-	-	1	2	1	-	-	1	5
Total Food Storage	3	6	3	2	8	12	17	1	-	-	52
<u>Beverage Containers</u>											
closure, pull tab, aluminum	-	-	-	1	-	-	-	-	-	-	1
sherds, glass											
amber	-	-	-	-	-	1	-	-	-	1	1
brown	2	15	-	2	1	7	6	-	-	-	33
"black"	-	2	1	-	1	2	-	1	-	-	7
green, bright	1	1	-	-	1	-	-	-	-	-	3
green, dark	-	1	1	-	1	-	4	1	-	-	8
green, olive											
Total Beverage Containers	3	19	2	3	4	10	10	2	-	-	53
<u>Food Serving</u>											
cups											
styrofoam, fragments	-	-	-	-	1	-	1	-	-	-	2
whiteware handle, undecorated	-	-	-	-	-	-	1	-	-	-	1
saucer, porcelain, polychrome painted	-	-	-	-	-	-	1	-	-	-	1
sherds											
creamware											
polychrome painted	-	-	-	1	-	-	-	-	-	-	1
undecorated	-	-	-	-	-	2	-	-	-	-	2
pearlware, blue transfer decorated	-	-	1	-	-	-	-	-	-	-	1
whiteware											
transfer, brown	1	1	-	-	-	-	-	-	-	-	2
transfer printed mark, black, royal coat of arms	-	-	-	-	-	1	-	-	-	-	1
transfer, blue	-	3	-	-	-	-	5	-	-	-	8
transfer, blue and black	-	-	-	-	-	2	-	-	-	-	2
transfer, green	-	-	-	1	-	-	-	-	-	-	1
undecorated	-	-	-	1	-	5	3	2	-	-	11
stoneware											
white, molded	-	-	-	-	-	-	1	-	-	-	1
grey, salt glazed	-	-	-	-	-	1	-	-	-	-	1
porcelain											
Chinese export	-	-	-	-	-	-	-	1	-	-	1
undecorated white	-	1	-	1	2	1	-	-	-	-	5
milk glass	-	1	-	-	-	-	1	-	-	-	2
Total Food Serving	1	6	1	4	3	12	13	3	-	-	43
<u>Pharmaceutical, cobalt blue glass</u>	-	-	-	-	-	1	-	-	-	-	1
<u>Food Remains</u>											
Bone											
medium mammal, long bone	-	-	-	1	-	-	-	-	-	-	1
small mammal, long bone	-	-	-	-	-	1	-	-	-	-	1
Total Food Remains	-	-	-	1	-	1	-	-	-	-	2

STRUCTURAL AND HARDWARE ARTIFACTS

	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	Total
<u>Window Glass</u>	1	14	9	17	21	34	17	12	2	1	128
<u>Nails</u>											
cut	-	1	-	2	-	1	-	-	-	-	4
wire	1	6	1	5	-	-	-	-	-	-	13
in wood	-	-	-	1	-	-	-	-	-	-	1
indistinguishable	-	1	-	-	1	-	-	-	-	-	2
Total Nails	1	8	1	8	1	1	-	-	-	-	20
<u>Utilities</u>											
lighting and electricity, lamp glass	-	-	-	1	-	-	-	3	-	-	4
sewer, pipe	-	-	-	1	-	-	-	-	-	-	1
ceramic	-	-	-	-	-	1	-	-	-	-	1
ferrous	-	-	-	-	-	-	-	-	-	-	-
Total Utilities	-	-	-	2	-	1	-	3	-	-	6
<u>Hardware</u>											
string	1	-	-	-	-	-	1	-	-	-	2
wire, ferrous	2	-	-	1	-	-	-	-	-	-	3
Total Hardware	3	-	-	1	-	-	1	-	-	-	5

PERSONAL ARTIFACTS

<u>Adornment</u> , bead, blue glass	-	-	-	-	-	-	1	-	-	-	1
<u>Clothing</u> , button, shell self shank	-	-	-	1	-	-	-	-	-	-	1
<u>Leisure time</u>											
Ball, rubber	-	-	-	-	-	1	-	-	-	-	1
phonograph record fragments	-	2	-	-	-	1	-	-	-	-	3
toy truck, metal	-	-	-	-	1	-	-	-	-	-	1
Total Leisure Time	-	2	-	-	1	2	-	-	-	-	5

ACTIVITIES

<u>Education</u> , crayon, grey	-	-	-	-	-	1	-	-	-	-	1
Medical, clear glass rod	-	-	-	-	-	1	-	-	-	-	1

UNCLASSIFIABLE

Aluminum, strip	1	-	-	-	-	-	-	-	-	-	1
Ferrous											
bar	1	-	-	-	-	-	-	-	-	-	1
lumps	-	-	1	-	-	-	1	5	-	-	7
strap	1	-	-	-	-	-	-	-	-	-	1
glass, amythesis "knob"	-	1	-	-	-	-	-	-	-	-	1
lead, strip	-	-	-	-	-	1	-	-	-	-	1
plastic, miscellaneous	-	-	-	-	1	5	-	-	-	-	6
metal, chromed sheet	-	-	-	-	-	-	1	-	-	-	1
shell	-	1	-	-	1	-	-	-	-	-	2
Total unclassifiable	3	2	1	-	2	6	2	5	-	-	21

Sitka NHP
RBH Back Yard N36W37.5
Artifact inventory

DOMESTIC ARTIFACTS	L.7	L.9	Total
Food Containers			
clear glass sherds	-	2	2
<hr/>			
<u>Beverages</u>			
"black glass	-	2	2
brown glass	-	3	3
Total Beverages	-	5	5
<hr/>			
<u>Food Serving</u>			
whiteware, undecorated	1	-	1
<hr/>			
TOTAL DOMESTIC	1	7	8
<hr/>			
<u>Nails</u>			
cut	4	2	6
wire	38	1	39
indistinguishable	8	-	8
Total Nails	50	3	53
<hr/>			
<u>Utilities, lighting and electricity</u>			
light bulb filament	1	-	1
light bulb glass, clear	34	-	34
Total Utilities	35	-	35
<hr/>			
<u>Hardware</u>			
washer	1	-	1
<hr/>			
TOTAL STRUCTURAL ARTIFACTS	86	3	89

Sitka NHP
 RBH Back Yard N36W37.5
 Artifact inventory

PERSONAL ARTIFACTS	L.7	L.9	Total
<u>Clothing</u>			
cloth, felt	1	-	1
button, prosser, white, 4-hole	1	-	1
Total Cothing	2	-	2
<hr/>			
TOTAL PERSONAL	2	-	2
<hr/>			

ACTIVITIES ARTIFACTS

<u>Medicine</u>			
glass rod	1	-	1
<hr/>			
<u>Burning</u>			
bone, burnt	6	-	6
lime, burnt	7	-	7
Total Burnt artifacts	13	-	13
<hr/>			
TOTAL ACTIVITIES	14	-	14
<hr/>			

UNCLASSIFIABLE ARTIFACTS

ferrous lumps with burnt inclusions	37	-	37
ferrous lump	-	1	1
TOTAL UNCLASSIFIABLE ARTIFACTS	37	1	38

Sitka NHP
 Back Yard, RBH N28W15
 Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.3	L.4	Total
<u>Food Storage</u>				
Bottle parts, clear glass				
base	2	-	-	2
top, screw finish	1	-	-	1
Sherds, glass				
aqua	2	2	-	4
clear, unmarked	16	10	2	28
clear, "E-USE"	-	-	1	1
Total Food Storage	21	12	3	36
<hr/>				
<u>Beverage</u>				
Bottle parts, brown glass				
top, crown finish	1	2	-	3
base	1	1	-	2
closure, wine, aluminum screw type	-	1	-	1
sherds, glass				
brown	64	29	1	94
bright green	2	1	-	3
olive green	3	3	-	6
dark green	1	1	-	2
Total Beverage	72	38	1	111
<hr/>				
<u>Food Serving</u>				
Whiteware,				
blue transfer	2	-	-	2
green glazed	-	1	-	1
undecorated	3	1	-	4
Total Food Serving	5	2	-	7
<hr/>				
Food Remains, bone, mammal rib	-	1	-	1
<hr/>				
TOTAL DOMESTIC	98	53	4	154

Sitka NHP
Old School Yard N28W15
Artifact inventory

STRUCTURAL ARTIFACTS L.1 L.3 L.4 Total

Window Glass 22 7 - 29

Nails
cut 2 1 - 3
wire 7 3 1 11
spike, 10" 1 - - 1
Total Nails 10 4 1 15

Utilities, lighting and electricity
lamp glass, clear 1 - - 1
porcelain insulator 1 - - 1
Total Utilities 2 - - 2

Hardware
screw, wood type 1 - - 1
staple 1 1 - 2
tack - - 1 1
Total Hardware 2 1 1 4

TOTAL STRUCTURAL 36 12 2 50

PERSONAL ARTIFACTS

Clothing
label, leather, Wrangler jeans 1 - - 1
thread, wool, red - 1 - 1
Total Clothing 1 1 - 2

Leisure Time
cigarette pack, Marlboro - 1 - 1
marble, opaque glass, white with red swirls 1 - - 1
Total Leisure Time 1 1 - 2

Sitka NHP
 Old School Yard N28W15
 Artifact inventory

STRUCTURAL ARTIFACTS (Con't.)

	L.1	L.3	L.4	Total
<u>Other Personal</u>				
Coin, penny, 1941	1	-	-	1
<hr/>				
TOTAL PERSONAL	3	2	-	5
<hr/>				

UNCLASSIFIABLE ARTIFACTS

rod, ferrous	1	-	-	1
shell	-	1	-	1
fiber	-	-	1	1
Total Unclassifiable	1	1	1	3

Sitka NHP
 Priest's Residence N23W50.4
 Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	Total
<u>Food Storage</u>					
can fragments, tin	7	-	-	-	7
Sherds, glass					
aqua	-	13	1	-	14
embossed	-	1	-	-	1
clear	13	24	5	-	42
light green	-	-	3	-	3
purple	1	-	-	-	1
wrappers					
paper	1	-	-	-	1
plastic	1	-	-	-	1
Total Food Storage	23	38	9	-	70

<u>Beverage Containers</u>					
bottle top					
"black" glass, champagne finish	1	-	-	-	1
brown glass, crown finish	-	1	-	-	1
closure, pull tab, aluminum	1	-	-	-	1
sherds,					
glass					
"black"	2	23	12	1	38
brown	77	23	1	-	101
bright green	-	-	2	-	2
olive green	-	10	-	-	12
dark green	-	2	-	-	2
ceramic					
stoneware, grey, yellow glaze	-	1	-	-	1
Total Beverage Containers	81	60	17	1	159

<u>Food Serving (all sherds)</u>					
creamware, undecorated	-	3	-	-	3
pearlware					
blue transfer printed	-	-	3	-	3
undecorated	2	21	6	-	29
whiteware,					
chromolithographed	4	-	-	-	4
transfer printed					
brown	-	3	-	-	3
black printed mark	-	-	-	-	1
blue	-	11	8	1	20
green	2	-	2	-	4
red	-	1	-	-	1
undecorated	10	9	2	-	21
earthenware, coarse brown, green glazed	-	-	1	-	1
stoneware, grey, salt glazed, blue painted	-	-	1	-	1

Sitka NHP
 Priest's Residence N23W50.4
 Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	Total
--------------------	-----	-----	-----	-----	-------

Food Serving (cont.)

porcelain					
polychrome painted	-	2	-	-	2
undecorated	-	1	-	-	1
milk glass	-	-	2	-	2
Total Food Serving	18	51	26	1	96

Food Remains

calcined bone	1	10	7	-	18
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Pharmaceutical

aqua panelled galss	1	-	3	-	4
cobalt blue glass	-	1	-	-	1
Total Pharmaceutical	1	1	3	-	5

TOTAL DOMESTIC	124	160	62	2	348
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2 303

- 5
- 20
- 9
- 1
- 35

— — — — —

- 5

- 1

2 346

- 2

- 1

- 1

- 1

- 3

- 5

Sitka NHP
 Priest's Residence N23W50.4
 Artifact inventory

ACTIVITIES ARTIFACTS	L.1	L.2	L.3	L.4	Total
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Education

glue tube top	1	-	-	-	1
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Transportation

Automobile (?) rubber gasket	2	1	-	-	3
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TOTAL ACTIVITIES ARTIFACTS	3	1	-	-	4
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UNCLASSIFIABLE ARTIFACTS

cinder	2	-	-	-	2
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ferrous items

lumps	2	-	5	-	7
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tooth-shaped	3	-	-	-	3
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plate	1	-	1	-	1
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plastic, clear	1	-	-	-	1
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rubber, brittle black	9	-	-	-	9
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shell	1	-	-	-	1
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stone, heated	-	1	-	-	1
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TOTAL UNCLASSIFIABLE	18	1	6	-	25
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DOMESTIC ARTIFACTS

L.1	L.2	Total
-----	-----	-------

Can fragments, tin
glass sherds

- 3 3

aqua
clear

2	3	5
10	-	10

paper
plastic

$$\begin{array}{ccc} 2 & - & 2 \\ 2 & - & 2 \end{array}$$

Total Food Storage

16 6 22

Bottle parts

top, "black" glass, champagne finish
base, brown glass, marked with "74"

$$\begin{array}{ccc} 1 & - & 1 \\ 1 & - & 1 \end{array}$$

Closures, aluminum pull tab

1 - 1

"black" glass

3 2 5

brown glass

5 3 8

olive green glass

- 3 3

stoneware, grey, red finish

$$2 \quad - \quad 2$$

Total Beverage Containers

13 8 21

pearlware

blue transfer
undecorated

-	1	1
2	-	2

blue transfer printed
undecorated

1	1	2
5	-	5

Total Food Serving

8 2 10

Artiodactyl, femur

1 - 1

Sitka Blacktail deer, right pelvis

- 1 1

Undifferentiated mammal, long bone

$$- \quad 1 \quad 1$$

Total Food Remains

1 2 3

Sitka NHP
 Priest's Residence N23W51.4
 Artifact inventory

STRUCTURAL ARTIFACTS	L.1	L.2	Total
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<u>Windows Glass</u>	24	-	24
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<u>Nails</u> wire	3	1	4
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<u>Hardware</u>			
bolt, ferrous	1	-	1
bolt, appliance type, ferrous	1	-	1
rod, glass (towel rack?)	1	-	1
Total Hardware	3	-	3

TOTAL STRUCTURAL ARTIFACTS	30	1	31
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PERSONAL ARTIFACTS

<u>Arms</u> .22 cartridge, "U" type	1	-	1
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ACTIVITIES ARTIFACTS

<u>Machinery</u> large iron ring coupling	1	-	1
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<u>Transportation</u> automobile rear light, red plastic covering	3	-	3
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TOTAL ACTIVITIES	4	-	4
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UNCLASSIFIABLE ARTIFACTS

Ferrous, plates	3	-	3
plastic, flesh colored	5	-	5
rubber, hard black	8	-	8
shell	1	-	1

Sitka NHP
Old School Yard N0W2
Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	Total
<u>Food Storage</u>							
sherds, glass							
aqua	1	12	2	2	1	1	19
clear	2	14	2	-	-	-	18
clear with purple tint	-	1	-	-	-	-	1
wrappers							
foil, aluminum	-	9	-	-	-	-	9
plastic	2	8	-	-	-	-	10
Total Food Storage	5	44	4	2	1	1	57
<u>Beverages</u>							
Closures							
crown cap, cork lined	-	1	-	-	-	-	1
snap cap, plastic	-	1	-	-	-	-	1
sherds							
amber glass	-	2	-	-	-	-	2
brown glass	-	5	-	-	-	-	5
"black" glass	-	9	1	-	-	1	11
dark green glass	-	1	-	-	-	-	1
olive green glass	-	1	1	-	-	-	2
stoneware, grey	-	1	1	-	-	-	2
Total Beverages	-	21	3	-	-	1	25
<u>Food Serving</u>							
sherds, ceramic							
creamware, undecorated	-	-	1	-	-	-	1
whiteware							
transfer printed, blue	-	3	1	-	-	-	4
transfer printed, brown	-	-	-	-	1	-	1
transfer printed, green	-	1	-	-	-	-	1
undecorated	1	10	4	-	1	-	15
tumbler, clear glass	-	-	1	-	-	-	1
Total Food Serving	-	14	7	-	2	-	23
<u>Pharmaceutical,</u>							
aqua panelled glass	-	6	3	1	-	-	10
aqua embossed glass "INGE" "& Co."	1	-	-	-	-	-	1
<u>Furniture,</u> caster wheel, plastic	-	1	-	-	-	-	1

Sitka NHP
Old School Yard N0W2
Artifact inventory

STRUCTURAL AND HARDWARE ARTIFACTS

	L.1	L.2	L.3	L.4	L.5	L.6	Total
<u>Window Glass</u>	8	34	5	1	2	1	51
<hr/>							
<u>Nails</u>							
cut	-	1	1	2	-	-	4
wire	6	5	1	-	-	-	12
indistinguishable	-	6	6	4	-	-	16
Total Nails	6	12	8	6	-	-	32
<hr/>							
<u>Materials</u> , linoleum	5	1	-	-	-	-	6
<hr/>							
Maintenance and repair filter mask	1	-	-	-	-	-	1
<hr/>							
<u>Utilities</u>							
lighting, insulated wire	-	1	-	-	-	-	1
sewer, ferrous pipe	1	-	-	-	-	-	1
water, ferrous pie	1	1	-	-	-	-	1
Total Utilities	2	1	-	-	-	-	3
<hr/>							
<u>Hardware</u> , string	2	5	-	-	-	-	7
<hr/>							

PERSONAL ARTIFACTS

<u>Clothing</u> , button, ferrous fiber filled	-	1	-	-	-	-	1
<hr/>							
<u>Leisure Time</u>							
Ball clay pipe fragment	1	-	-	-	-	-	1
marbles							
Opaque glass, yellow and white	-	1	-	-	-	-	1
"tiger eyes", glass	4	-	-	-	-	-	4
Total							
Total Leisure Time	5	1	-	-	-	-	6
<hr/>							

Sitka NHP
Old School Yard N0W2
Artifact inventory

ACTIVITIES ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	Total
<u>Education</u> , glue tube	-	1	-	-	-	-	1
<u>Storage</u> , packing, styrofoam	-	1	-	-	-	-	1
<u>Transportation</u> , bicycle tire patch	-	1	-	-	-	-	1
UNCLASSIFIABLE							
Ferrous							
lumps	2	5	-	1	3	-	11
strap	1	-	-	-	-	-	1
Plastic, miscellaneous	1	14	-	-	-	-	15
Shell	-	6	-	-	-	-	6
Total Unclassifiable	4	25	-	1	3	-	33

Sitka NHP
Old School - N20W1
Artifact inventory

DOMESTIC	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Food Storage</u>													
bottles													
bases													
aqua	-	-	-	-	3	-	-	-	-	-	-	-	3
clear	-	-	-	-	1	-	-	-	-	-	-	-	1
tops													
clear, medium mouth	1	-	-	1	-	-	-	-	-	-	-	-	2
light green, mm	-	-	-	-	1	-	-	-	-	-	-	-	1
olive green, mm	-	-	-	-	1	-	-	-	-	-	-	-	1
cans, tin, fragments	8	17	37	18	8	-	-	-	4	5	1	-	98
jars													
canning													
aqua	-	-	-	-	-	1	-	-	-	-	-	-	1
clear	-	-	2	1	-	-	-	-	-	-	-	-	3
other, whiteware	-	-	-	4	-	-	-	-	-	-	-	-	4
closures													
paper seal	-	-	-	-	-	-	1	-	-	-	-	-	1
screw cap, metal	-	-	1	-	-	-	-	-	-	-	1	-	1
sherds, glass													
aqua	2	2	20	23	10	12	1	-	-	-	-	-	70
blue	-	1	1	-	-	-	-	-	-	-	-	-	2
clear, medium	16	9	21	8	14	6	2	3	4	2	-	1	86
clear, thin	-	-	-	17	-	1	-	-	-	-	-	-	18
clear, purple tint	-	-	-	-	-	1	-	-	-	-	-	-	1
purple	-	-	-	-	-	-	-	1	-	-	-	-	1
wrappers													
plastic													
Brach's candy	1	-	-	-	-	-	-	-	-	-	-	-	1
fragments	3	2	3	2	-	-	-	-	-	-	-	-	10
foil	3	4	3	2	3	2	1	-	-	-	-	-	18
light green glass	-	-	-	-	5	-	2	1	5	-	-	-	13
Total Food Storage	34	35	88	76	46	23	7	5	13	7	1	1	336

Beverage Containers

Bottles													
Beer (brown)													
crown finish	1	-	-	1	-	1	-	-	-	-	-	-	3
screw finish	1	-	-	-	1	-	-	-	-	-	-	-	1
base	-	1	1	-	-	-	-	-	-	-	-	-	2
"black" liquor													
top	-	-	1	1	-	-	-	-	-	-	-	-	2
base	-	-	-	-	-	-	1	-	-	-	-	-	1
amber liquor													
top	-	-	-	1	-	-	-	-	-	-	-	-	1
base	-	-	-	-	-	-	1	-	-	-	-	-	1
green liquor top	-	-	-	1	-	1	-	-	-	-	-	-	2
closures													
crown cap, ferrous	1	-	-	-	-	-	-	-	-	-	-	-	1
crown cap liner, cork	1	-	-	-	-	-	-	-	-	-	-	-	1
cork	-	-	-	1	-	-	-	-	-	-	-	-	1
pull tab, aluminum	1	-	-	-	-	-	-	-	-	-	-	-	1
sherds													
amber	-	2	-	2	1	2	-	-	1	-	-	-	9
brown	56	6	19	12	3	3	4	-	1	-	-	-	104
"black"	-	-	20	12	7	4	2	-	1	-	-	1	47
bright green	1	-	1	2	-	-	-	-	-	-	-	-	4
dark green	1	2	1	5	5	-	3	-	2	1	2	-	22
olive green	2	8	9	8	19	6	1	1	-	1	1	-	56
Total Beverage Containers	65	19	52	46	35	18	13	1	5	2	3	1	259

Sitka NHP
Old School - N20W1
Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Food Serving</u>													
cups													
coffee, styrofoam	1	-	-	-	-	-	-	-	-	-	-	-	1
teacup, porcelain	-	-	-	-	-	1	-	-	-	-	-	-	1
bowl, whiteware, undecorated	-	-	-	-	-	2	-	-	-	-	-	-	2
plate, whiteware, impressed mark	-	-	-	1	-	-	-	-	-	-	-	-	1
lid, whiteware, blue trans.	-	-	-	1	-	-	-	-	-	-	-	-	1
salt shaker top, metal	1	-	-	-	-	-	-	-	-	-	-	-	1
tumbler, clear glass	-	-	-	1	-	-	-	-	-	-	-	-	1
other, disc, porcelain	-	-	-	1	-	-	-	-	-	-	-	-	1
sherds													
creamware, undecorated	-	-	-	-	-	1	-	-	-	-	-	-	1
glass, opaque													
green	16	-	2	-	-	-	-	-	-	-	-	-	18
white (milk)	-	-	1	-	-	-	-	-	-	-	-	-	1
porcelain													
painted, pink and green	-	-	-	-	1	-	-	-	-	-	-	-	1
undecorated	2	-	3	1	1	-	-	-	-	-	1	-	8
stoneware													
buff, salt glazed	-	-	2	-	-	-	-	-	-	-	-	-	2
buff, brown glazed	-	-	1	-	-	-	-	-	-	-	-	-	1
grey, salt glazed	-	-	1	-	-	-	-	-	-	-	-	-	1
whiteware													
Fiesta ware, purple	-	-	1	-	-	-	-	-	-	-	-	-	1
painted													
black stripe	-	-	-	-	1	-	-	-	-	-	-	-	1
green stripe	-	4	-	-	-	-	1	-	-	-	-	-	5
green and blue mottled	-	-	1	4	1	-	-	-	-	-	-	-	6
transfer printed													
blue	2	1	5	5	4	1	1	-	-	-	-	-	19
brown	-	1	1	-	2	-	-	-	-	-	-	-	4
green	-	-	-	-	1	-	-	-	-	-	-	-	1
undecorated	1	3	18	3	52	7	5	2	1	1	2	-	95
yellowware													
blue banded	-	-	2	1	-	-	-	-	-	-	-	-	3
undecorated	-	-	-	-	-	2	-	-	-	-	-	-	2
Total Food Serving	23	9	38	18	65	12	7	2	1	1	3	-	179

Sitka NHP
Old School - N20W1
Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
Food Remains													
Bone													
cow, acetabulum	1	-	-	1	-	-	-	-	-	-	-	-	2
deer													
calcaneum	-	1	1	-	-	-	-	-	-	-	-	-	2
phalanx	-	-	-	-	-	1	-	-	-	-	-	-	1
tibia	-	-	1	-	-	-	-	-	-	-	-	-	1
tooth	-	-	4	-	-	-	-	-	-	-	-	-	4
vertebrae	-	1	-	-	-	-	-	-	-	-	-	-	1
unspecified long bone	-	-	-	-	1	-	-	-	-	-	-	-	1
unspecified mammal													
large size													
long bone	-	-	-	-	1	-	-	-	-	-	1	-	2
rib	-	-	-	-	-	-	1	-	-	-	-	-	1
medium size													
long bone	-	-	1	-	1	-	-	-	-	-	1	-	3
rib	-	-	-	1	-	-	-	-	-	-	1	-	1
small size, long bone	-	-	1	-	1	-	-	-	-	-	-	-	2
undetermined size													
long bone	-	-	1	2	-	-	-	-	-	-	-	-	3
rib	-	-	1	-	-	-	-	-	-	-	-	-	1
unknown	-	-	2	1	-	-	-	-	-	-	-	-	3
Bird													
large													
skull	-	-	1	-	-	-	-	-	-	-	-	-	1
digit	-	-	-	-	-	-	-	-	-	1	-	-	1
medium sized, mandible	-	-	1	-	-	-	-	-	-	-	-	-	1
undetermined size													
femur	-	-	1	-	-	-	-	-	-	-	-	-	1
vertebra	-	-	1	-	-	-	-	-	-	-	-	-	1
unspecified long bone	-	-	2	-	-	-	-	-	-	-	-	-	2
Vegetable remains													
coconut shell (?)	-	-	-	-	1	-	-	-	-	-	-	-	1
Total Food Remains	1	2	14	6	8	1	1	-	-	1	2	-	36
Pharmaceutical													
Cobalt blue glass	-	-	-	-	-	-	1	-	-	-	1	-	2
panelled glass													
aqua	-	-	-	4	3	-	-	-	2	-	-	-	9
embossed	-	-	-	2	-	-	-	-	-	-	-	-	2
clear	-	-	-	1	-	-	-	-	-	-	-	-	1
green, embossed	-	-	1	-	-	-	-	-	-	-	-	-	1
prescription finish glass													
clear	-	-	-	1	-	-	-	-	-	-	-	-	1
stopper, clear, glass	-	-	-	1	-	-	-	-	-	-	-	-	1
Total Pharmaceutical	-	-	-	7	3	-	1	-	2	-	1	-	14
Furnishings													
ferrous coat hook	1	-	-	-	-	-	-	-	-	-	-	-	1
Total Furnishings	1	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL DOMESTIC	124	65	193	155	157	54	28	8	21	11	10	2	828

STRUCTURAL AND HARDWARE ARTIFACTS

	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Window glass</u>	34	11	35	27	39	13	9	5	2	4	1	-	180
<u>Nails</u>													
cut	-	-	4	25	5	3	3	3	-	-	-	-	43
wire	15	22	57	-	5	3	2	-	1	-	-	-	105
indistinguishable	-	-	-	25	9	3	-	-	-	-	10	1	48
spikes	-	-	-	-	2	-	-	-	-	-	-	-	2
Total Nails	15	22	61	50	21	9	5	3	1	-	10	1	198
<u>Materials</u>													
brick	-	-	-	-	1	-	-	-	-	-	-	-	1
linoleum	31	15	3	-	1	-	-	-	-	-	-	-	50
shingle, composition	1	-	-	-	-	-	-	-	-	-	-	-	1
tile, ceramic, embossed	-	-	1	4	-	-	-	-	-	-	1	-	5
tar paper	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Materials	32	15	4	4	2	-	-	-	-	-	1	-	57
<u>Repair and Maintenance</u>													
paint brush	-	-	2	-	-	-	-	-	-	-	-	-	2
paint can	-	-	-	-	-	1	-	-	-	-	-	-	1
whetstone, shale	-	-	-	1	-	-	-	-	-	-	-	-	1
Total Repair and Maintenance	-	-	2	1	-	1	-	-	-	-	-	-	4
<u>Hardware, structural</u>													
door lock	-	1	-	-	-	-	-	-	-	-	-	-	1
grate	-	-	-	1	1	-	-	-	-	-	-	-	2
Total Structural Hardware	-	1	-	1	1	-	-	-	-	-	-	-	3
<u>Utilities</u>													
lighting	-	-	1	6	-	-	-	-	-	1	-	-	8
lamp glass	1	-	-	-	-	-	-	1	-	-	-	-	2
light bulb glass	-	1	-	-	-	-	-	-	-	-	-	-	1
porcelain insulator	-	1	-	-	1	-	-	-	-	-	-	-	1
wire, copper insulated with plastic	-	-	-	1	-	-	-	-	-	-	-	-	1
sewer, pipe, ceramic	-	-	-	1	-	-	-	-	-	-	-	-	1
Total Utilities	1	2	1	8	1	-	-	1	-	1	-	-	17
<u>Hardware, miscellaneous</u>													
bolt, hexagonal	1	-	-	-	-	-	-	-	-	-	-	-	1
hose, rubber	1	-	-	-	-	-	-	-	-	-	-	-	1
river, cuprous	-	-	-	1	-	-	-	-	-	-	-	-	1
screws													
with washer	-	1	-	-	-	-	-	-	-	-	-	-	1
appliance type, with washer	1	-	-	-	-	-	-	-	-	-	-	-	1
for wood	-	-	1	1	1	-	-	-	-	-	-	-	3
strapping, ferrous, 1"	-	-	-	1	-	-	-	-	-	-	-	-	4
wire													
copper	-	1	-	-	-	-	-	-	-	-	-	-	1
ferrous	-	-	-	-	-	-	-	-	1	-	-	-	1
washer, lead, crude	-	-	-	1	-	-	-	-	-	-	-	-	1
plate, ferrous	-	-	-	-	1	-	-	-	-	-	-	-	1
Total Hardware, miscellaneous	3	2	1	4	2	-	-	-	1	-	-	-	13
TOTAL STRUCTURAL ARTIFACTS	85	53	104	95	66	23	14	9	4	5	12	1	471

Sitka NHP
Old School - N20W1
Artifact inventory

PERSONAL ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Arms</u>													
bullet, .22	1	-	-	-	-	-	-	-	-	-	-	-	1
cartridge, rifle	-	-	-	1	1	-	-	-	-	-	-	-	2
Total Arms	1	-	-	1	1	-	-	-	-	-	-	-	3
<hr/>													
<u>Clothing</u>													
buttons													
red/brown prosser	-	-	1	-	-	-	-	-	-	-	-	-	1
white prosser	-	-	1	-	-	-	-	-	-	-	-	-	1
cuprous, gilt	-	-	-	1	-	-	-	-	-	-	-	-	1
collar stud, plastic	-	1	-	-	-	-	-	-	-	-	-	-	1
cloth													
fine weave, black	-	-	1	3	-	-	-	-	-	-	-	-	4
medium weave, black	-	-	-	1	1	-	-	-	-	-	-	-	2
loose weave	-	-	-	1	-	-	-	-	-	-	-	-	1
scissors	1	-	1	-	-	-	-	-	-	-	-	-	2
shoe last	1	-	-	-	-	-	-	-	-	-	-	-	1
shoe upper, machine stitched	-	-	-	-	-	1	-	-	-	-	-	-	1
sewing machine pedal	-	-	1	-	-	-	-	-	-	-	-	-	1
leather strap	1	-	1	-	1	-	-	-	-	-	-	-	3
Total Clothing	3	1	6	6	2	1	-	-	-	-	-	-	19
<hr/>													
<u>Leisure time</u>													
camera flash bulb, plastic	1	-	-	-	-	-	-	-	-	-	-	-	1
cigarette filter	-	-	-	-	1	-	-	-	-	-	-	-	1
doll's arm, porcelain	-	-	1	-	-	-	-	-	-	-	-	-	1
ball clay pipe bowl	-	1	-	-	-	-	-	-	-	-	-	-	1
radio cover, plastic	1	-	-	-	-	-	-	-	-	-	-	-	1
phonograph record	-	2	1	-	-	-	-	-	-	-	-	-	3
toy wheel, plastic	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Leisure Time	2	3	3	-	1	-	-	-	-	-	-	-	9
<hr/>													
<u>Study</u>													
plastic instrument cover	1	-	-	-	-	-	-	-	-	-	-	-	1
pencil	-	1	-	-	-	-	-	-	-	-	-	-	1
Total Study	1	1	-	-	-	-	-	-	-	-	-	-	2
<hr/>													
<u>Other personal</u>													
coin, penny, 1930	-	-	-	-	-	-	-	-	-	1	-	-	1
TOTAL PERSONAL ARTIFACT	6	6	9	7	4	1	-	-	-	1	-	-	34

Sitka NHP
Old School - N20W1
Artifact inventory

ACTIVITIES ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
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<u>Communication</u> print type	-	-	-	-	-	-	-	1	-	-	-	-	1
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<u>Machinery</u> parts	1	-	1	-	-	-	-	-	-	-	-	-	2
plates	-	-	2	-	-	-	-	-	-	-	-	-	2
Total Machinery	1	-	3	-	-	-	-	-	-	-	-	-	4

<u>Medical</u> glass tubes	-	-	-	2	-	-	-	-	-	-	-	-	2
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<u>Metal working</u> slag	-	-	-	-	1	-	-	-	-	-	-	-	1
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TOTAL ACTIVITIES	1	-	3	2	1	-	-	1	-	-	-	-	8
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UNCLASSIFIABLE ARTIFACTS

aluminum disc	-	1	-	-	-	-	-	1	-	-	-	-	1
cuprous sheets	-	1	1	2	1	-	-	-	-	-	-	-	5
tube	1	-	-	-	-	-	-	-	-	-	-	-	1
ferrous bars	1	1	-	1	-	-	-	-	-	-	-	-	3
lumps	1	2	48	33	17	1	8	-	1	-	1	-	112
fiber, woven	-	1	-	-	-	-	-	-	-	-	-	-	1
glass, melted	-	-	-	-	-	1	-	-	-	-	-	-	1
lead, sheets	-	-	-	-	9	-	-	-	-	-	-	-	9
paper	-	-	-	-	-	-	1	-	-	-	-	-	1
plastic	7	-	1	-	-	1	-	-	-	-	-	-	9
shell	-	4	3	2	2	2	-	-	-	-	-	-	13
Total Unclassifiable	10	10	53	38	29	5	9	-	1	-	1	-	156

Sitka NHP
Old School - N14W5
Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Food Storage</u>													
cans, tin, fragments	-	-	6	26	2	-	-	-	-	-	-	-	34
closures, ferrous													
screw cap	-	-	1	-	-	-	-	-	-	-	-	-	1
snap cap	-	-	-	1	-	-	-	-	-	-	-	-	1
jars clear glass													
canning	-	1	3	1	-	-	-	-	-	-	-	-	5
jelly	-	-	1	-	-	-	-	-	-	-	-	-	1
sherds													
aqua	-	6	8	8	1	5	3	-	-	-	-	-	31
clear	-	20	30	13	7	8	2	6	1	-	-	-	87
clear with red print	-	-	-	-	-	1	-	-	-	-	-	-	1
clear with purple tint	-	-	-	1	-	-	1	-	-	-	-	-	2
light green	-	-	-	-	2	1	-	-	-	-	-	-	3
red	-	-	1	-	-	-	-	-	-	-	-	-	1
wrappers													
foil	-	3	7	10	2	1	-	-	-	-	-	-	23
plastic	-	1	11	2	-	2	-	-	-	-	-	-	16
plastic and foil	-	-	-	-	-	-	1	-	-	-	-	-	1
Total Food Storage	-	31	68	62	14	18	7	6	1	-	-	-	207
<u>Beverage containers</u>													
Bottles													
beer, brown glass													
beer finish	-	-	-	-	-	-	-	-	1	-	-	-	1
screw finish	-	3	-	-	-	-	-	-	-	-	-	-	3
mineral water, stoneware	-	-	-	1	-	2	-	-	-	-	-	-	3
Closures													
crown cap													
foil lined	-	1	-	-	-	-	-	-	-	-	-	-	1
plastic lined	-	1	1	-	-	-	-	-	-	-	-	-	2
pull tab, aluminum	-	-	-	1	-	-	-	-	-	-	-	-	1
Sherds, glass													
amber	-	-	-	1	-	-	-	-	-	-	-	-	1
"black"	-	2	13	2	3	3	11	2	-	-	1	-	37
brown	-	54	22	12	6	7	8	1	1	-	-	-	111
dark green	-	-	-	-	1	-	-	3	3	-	-	-	7
olive green	-	3	1	2	-	5	6	-	-	-	-	-	17
Sherds, stoneware, buff	-	-	-	1	-	2	-	-	-	-	-	-	3
Total Beverage Containers	-	64	37	20	10	19	25	6	5	-	1	-	187

Sitka NHP
Old School N14W5
Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Food Serving</u>													
bowl													
glass, pressed clear	-	-	-	-	-	1	-	-	-	-	-	-	1
plastic, white	-	2	-	-	-	-	-	-	-	-	-	-	2
cup													
porcelain													
polychrome painted	-	-	1	-	-	-	-	-	-	-	-	-	1
gold lustre/painted/embossed	-	-	-	-	-	2	-	-	-	-	-	-	2
undecorated	-	-	-	1	-	-	2	-	-	-	-	-	3
whiteware													
purple transfer printed	-	-	1	-	2	-	-	-	-	-	-	-	3
plate													
porcelain, undecorated	-	3	-	-	-	-	-	-	-	-	-	-	3
creamware, undecorated	-	-	6	-	-	-	-	-	-	-	-	-	6
pearlware, blue transfer	-	-	-	1	-	-	3	-	-	-	-	-	4
salt shaker top, plastic	-	-	-	1	-	-	-	-	-	-	-	-	1
saucer, porcelain, polychrome painted	-	-	1	-	-	-	-	-	-	-	-	-	1
sherds													
ceramic													
creamware, undecorated	-	5	2	5	2	11	2	1	-	-	-	1	34
pearlware,													
blue transfer	-	-	-	3	1	4	-	1	-	-	-	-	9
brown transfer	-	-	-	-	-	1	-	-	-	-	-	-	1
undecorated	-	-	1	1	-	-	1	1	1	1	-	-	6
whiteware													
annular	-	-	-	-	-	-	-	1	-	-	-	-	1
blue sponged	-	-	-	-	1	-	-	-	-	-	-	-	1
transfer, blue	-	1	6	-	1	2	1	1	1	-	-	-	13
makers mark	-	-	-	-	-	-	1	-	-	-	-	-	1
blue and green	-	-	-	2	-	-	-	-	-	-	-	-	2
brown	1	-	-	-	-	2	1	1	-	-	-	-	5
black	-	-	1	-	-	-	-	-	-	-	-	-	1
makers mark	-	-	1	-	1	-	-	-	-	-	-	-	2
green	-	1	1	-	-	-	1	-	-	-	-	-	3
polychrome painted	-	-	1	1	1	-	-	-	-	-	-	-	3
undecorated	-	2	1	6	3	3	1	-	-	-	-	-	16
porcelain													
painted													
blue	-	-	1	-	-	-	-	-	-	-	-	-	1
polychrome	-	3	-	1	-	1	-	-	-	-	-	-	5
printed, blue	-	-	1	-	-	-	-	-	-	-	-	-	1
undecorated	-	-	2	3	2	2	-	1	-	-	-	-	10
yellow ware, undecorated	-	-	-	-	-	1	4	-	-	-	-	-	6
stoneware													
white, saltglazed	-	-	1	-	-	-	-	-	-	-	-	-	1
grey, blue painted	-	-	-	-	1	1	-	-	-	-	-	-	2
glass,													
green, embossed	-	1	-	-	-	-	-	-	-	-	-	-	1
white (milk), green painted	-	2	2	-	1	-	-	-	-	-	-	-	5
tumbler,													
green plastic	-	1	-	-	-	-	-	-	-	-	-	-	1
clear base	-	-	-	-	1	-	-	-	-	-	-	-	1
utensil handle, aluminum	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Food Serving	1	21	31	25	17	25	26	8	3	2	-	1	160

Sitka NHP
Old School N14W5
Artifact inventory

DOMESTIC ARTIFACTS

Food Remains

	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
Bone													
Deer													
radius	-	1	-	-	-	-	-	-	-	-	-	-	1
tibia	-	-	-	1	-	-	-	-	-	-	-	-	1
vertebrae	-	2	-	-	-	-	-	-	-	-	-	-	2
Unspecified mammal													
medium size													
phalanx	-	1	-	-	-	-	-	-	-	-	1	-	1
rib	-	2	-	-	-	-	-	-	-	-	-	-	2
tibia	-	1	-	-	-	-	-	-	-	-	-	-	1
other long bone	-	-	3	-	-	-	-	-	-	-	-	-	3
large sized, rib	-	-	-	-	-	-	-	-	-	-	-	-	1
undetermined size													
long bone	-	-	1	1	-	-	-	-	-	-	-	-	2
scapula	-	1	-	-	-	-	-	-	-	-	-	-	1
other	-	-	-	-	-	-	-	1	-	-	-	-	1
burned	-	-	1	-	-	-	-	-	-	-	-	-	1
Vegetable remains													
cocoanut shell	-	-	1	-	-	-	-	-	-	-	-	-	1
peach pit	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Food Remains	-	8	6	2	1	-	-	2	-	-	-	-	19

Pharmaceutical

Bottle													
castor oil, oil finish, aqua	-	-	-	-	1	-	-	-	-	-	-	-	1
sherds													
aqua panneled	-	-	2	1	1	2	1	3	-	-	-	-	10
embossed	-	-	1	-	-	-	-	-	-	-	-	-	1
cobalt blue	-	-	2	-	-	-	-	-	-	-	1	-	2
Total Pharmaceutical	-	-	4	1	2	2	1	3	-	-	-	-	13

Furnishings

chair upholstery, plastic	-	-	6	-	-	-	-	-	-	-	-	-	6
mirrored glass													
curved	-	-	5	6	-	-	-	-	-	-	-	-	11
flat	-	-	1	3	-	-	-	-	-	-	-	-	4
Total Furnishings	-	-	12	9	-	-	-	-	-	-	-	-	21

Housekeeping

Tub and tile cleaner													
bright green glass	-	-	1	8	9	2	-	-	-	-	-	-	20
Total Housekeeping	-	-	1	8	9	2	-	-	-	-	-	-	20

Sitka NHP
Old School - N14W5
Artifact inventory

STRUCTURAL AND HARDWARE	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Window Glass</u>													
plain (varied thick & color)	-	102	364	267	10	55	44	15	9	2	-	-	868
glass with blued visquine	-	-	-	1	-	-	-	-	-	-	-	-	1
visquine	-	1	-	-	2	-	-	-	-	-	-	-	3
Total Window glass	-	103	364	268	12	55	44	15	9	2	-	-	872
<u>Nails</u>													
brass, forged	-	-	-	-	-	-	-	1	-	-	-	-	1
cut	-	1	8	3	-	3	2	-	-	-	-	-	17
in wood	-	2	-	1	-	-	-	-	-	-	-	-	3
wire	-	11	51	17	12	2	-	1	-	-	-	-	94
indistinguishable	-	2	21	13	9	9	9	-	1	-	-	-	64
Total Nails	-	16	80	34	21	14	11	2	1	-	-	-	179
<u>Materials</u>													
brick	-	-	2	-	-	-	-	-	-	-	-	-	2
caulking	-	-	-	2	-	-	-	-	-	-	-	-	2
glazing, window	-	4	12	1	-	-	-	-	-	-	-	-	17
linoleum													
green and white	-	1	3	-	1	-	-	-	-	-	-	-	5
white	-	-	-	1	-	-	-	-	-	-	-	-	1
mortar	-	2	-	1	-	2	1	-	-	-	-	-	6
tar paper	-	7	-	7	-	-	-	-	-	-	1	-	14
tar paper with rolled metal	-	-	1	-	-	-	-	-	-	-	-	-	1
tile, ceramic	-	-	1	-	-	-	-	-	-	-	-	-	1
Total materials	-	14	19	12	1	2	1	-	-	-	-	-	49
<u>Maintenance and repair</u>													
whetstone, sandstone	-	-	-	-	-	-	1	-	-	-	-	-	1
Total Maintenance and Repair	-	-	-	-	-	-	1	-	-	-	-	-	1
<u>Utilities, electrical</u>													
plug tang	-	-	-	-	1	-	-	-	-	1	-	-	1
socket protector	-	-	1	-	-	-	-	-	-	-	-	-	1
wire													
cuprous, rubber insulated	-	1	2	-	-	-	-	-	1	-	-	-	4
rubber insulation sans wire	-	2	5	-	2	-	-	-	-	-	-	-	9
unknown	-	1	-	-	-	-	-	-	-	-	-	-	1
lamp glass	-	-	7	1	-	2	-	-	2	-	-	-	12
Total Utilities	-	4	15	1	3	2	-	-	3	-	-	-	28
<u>Hardware, miscellaneous</u>													
bolt, with nut	-	-	-	1	-	-	-	-	-	-	-	-	1
cord wrapped with wire	-	-	1	1	-	-	-	-	-	-	-	-	2
file	-	-	1	1	-	-	-	-	-	-	-	-	2
hinge, cabinent	-	-	-	-	-	-	1	-	-	-	-	-	1
nut, conical	-	-	-	1	-	-	-	-	-	-	-	-	1
ring, cuprous	-	-	-	1	-	-	-	-	-	-	-	-	1
rivet	-	-	1	-	-	-	-	-	-	-	-	-	1
screws													
appliance	-	-	-	1	-	-	-	-	-	-	-	-	1
chromed, with nut	-	-	-	1	-	-	-	-	1	-	-	-	1
wood	-	2	-	-	-	-	-	-	-	-	-	-	2
springs, ferrous	-	2	-	-	-	-	-	-	-	-	-	-	2
washers													
ferrous	-	-	2	-	-	-	-	-	-	-	-	-	2
rubber	-	-	-	-	1	-	-	-	-	-	-	-	1
wire													
aluminum	-	-	-	1	-	-	-	-	-	-	-	-	1
ferrous	-	4	2	-	-	-	-	-	-	-	-	-	6
Total Hardware	-	8	7	8	1	-	1	-	-	-	-	-	25

Sitka NHP
Old School N14W5
Artifact inventory

PERSONAL ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Adornment</u>													
beads													
plastic													
green	-	-	-	1	-	-	-	-	-	-	-	-	1
white	-	1	3	-	-	-	-	-	-	-	-	-	4
glass													
blue	-	-	-	-	-	-	1	-	1	-	-	-	2
red and white	-	-	-	-	-	-	1	-	-	-	-	-	1
lavendar	-	-	-	-	1	-	-	-	-	-	-	-	1
necklace, steel chanin	-	1	-	-	-	-	-	-	-	-	-	-	1
bracelet, solid ring, brass	-	1	-	-	-	-	-	-	-	-	-	-	1
Total Adornment	-	3	3	1	1	-	2	-	1	-	-	-	11
<hr/>													
<u>Clothing</u>													
buttons													
prosser, white													
plain	-	-	-	-	1	-	-	-	-	-	-	-	1
calico	-	1	-	-	-	-	-	-	-	-	-	-	1
shell, 4-hole													
white	-	1	1	-	-	-	-	-	-	-	-	-	2
grey	-	-	4	-	-	-	-	-	-	-	-	-	4
shoe, leather outside, right foot	-	-	-	-	-	-	-	-	1	-	-	-	1
zipper													
pull	-	1	-	-	-	-	-	-	-	-	-	-	1
track	-	-	2	-	-	-	-	-	-	-	-	-	2
Total Clothing	-	3	7	-	1	-	-	-	1	-	-	-	12
<hr/>													
<u>Grooming and Hygiene</u>													
hair curlers, plastic	-	2	-	-	-	-	-	-	-	-	-	-	2
comb tooth, plastic	-	-	1	-	1	-	-	-	-	-	-	-	2
bandaide	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Grooming and Hygiene	-	2	2	-	1	-	-	-	-	-	-	-	5
<hr/>													
<u>Leisure time</u>													
doll's head, plastic	-	-	-	-	1	-	-	-	-	-	-	-	1
gaming piece, plastic	-	1	-	-	-	-	-	-	-	-	-	-	1
ball clay pipe fragment	-	1	-	-	-	-	-	-	-	-	-	-	1
phonograph record fragment	-	5	1	2	-	-	-	-	-	-	-	-	8
Play-Doh container lid	-	-	-	1	-	-	-	-	-	-	-	-	1
toy ray gun, miniature	-	1	-	-	-	-	-	-	-	-	-	-	1
Total Leisure Time	-	8	1	3	1	-	-	-	-	-	-	-	13
<hr/>													
<u>Other Personal items</u>													
coins													
penny	-	1	-	-	-	-	-	-	-	-	-	-	1
kopek	-	-	-	-	-	-	1	-	-	-	-	-	1
key	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Other Personal	-	1	1	-	-	-	1	-	-	1	-	-	3

Sitka NHP
Old School N14W5
Artifact inventory

ACTIVITIES ARTIFACTS	L.1	L.2	L.3	L.4	L.5	L.6	L.7	L.8	L.9	L.10	L.11	L.12	Total
<u>Communication</u>													
printing type					1								1
plastic	-	-	-	-	-	-	-	-	-	-	-	-	1
lead	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Communication	-	-	1	-	1	-	-	-	-	-	-	-	2
<u>Education</u>													
ball point pen	-	-	-	-	1	-	-	-	-	-	-	-	1
crayon,													
green	-	-	1	-	-	-	-	-	-	-	-	-	1
orange	-	-	-	-	1	-	-	-	-	-	-	-	1
pencil, slate	-	-	1	-	1	-	-	-	-	-	-	-	2
string, fine	-	-	-	1	-	-	-	-	-	-	-	-	1
Total Education	-	-	2	1	3	-	-	-	-	-	-	-	6
<u>Machinery</u>													
electrical junction	-	-	-	1	-	-	-	-	-	-	-	-	1
plate, ferrous	-	-	-	1	-	-	-	-	-	-	-	-	1
nut with flanged part	-	-	1	-	-	-	-	-	-	-	-	-	1
Total Machinery	-	-	1	2	-	-	-	-	-	-	-	-	3
<u>Storage</u>													
packing, styrofoam	-	-	1	-	-	-	-	-	-	-	-	-	1
strapping tape	-	-	-	1	1	-	-	-	-	-	-	-	2
Total Storage	-	-	1	1	1	-	-	-	-	-	-	-	3
<u>Transportation</u>													
automobile													
ice scraper, plastic	-	-	-	1	-	-	-	-	-	-	-	-	1
light cover, plastic	-	-	1	-	1	-	-	-	-	-	-	-	2
bicycle													
license tag, aluminum	-	1	-	-	-	-	-	-	-	-	-	-	1
Total Transportation	-	1	1	1	1	-	-	-	-	-	-	-	4
TOTAL ACTIVITIES	-	6	5	6	-	-	-	-	-	-	-	-	18
<u>UNCLASSIFIABLE ARTIFACTS</u>													
Chrome	-	-	-	1	-	-	-	-	-	-	-	-	1
cuprous													
sheets	-	-	-	-	-	-	1	-	-	-	-	-	1
tube	-	-	-	1	-	-	-	-	-	-	-	-	1
ferrous													
bars	-	-	-	-	-	1	-	-	-	-	-	-	1
lumps	-	1	2	-	5	-	9	-	-	-	-	-	17
glass, melted	-	-	-	4	-	1	-	-	-	-	-	-	4
lead													
screw	-	-	1	-	-	-	-	-	-	-	-	-	1
sheet	-	-	2	-	-	-	-	-	-	-	-	-	2
plastic													
miscellaneous	-	4	10	8	6	-	-	-	-	-	-	-	28
with staples	-	1	-	-	-	-	-	-	-	-	-	-	1
shell	-	3	4	-	1	-	-	-	-	-	-	-	8
Total Unclassifiable	-	9	19	14	12	1	10	-	-	-	-	-	65

Sitka NHP
Old School N15E1.5
Artifact inventory

DOMESTIC	L.1	L.2	L.3	L.4	L.5	Total
<u>Food Containers</u>						
bottles, clear glass						
bases	7	2	-	-	-	9
top, screw type	1	-	-	-	-	1
cans, ferrous fragments	3	4	-	20	-	27
closures, ferrous screw cap	-	1	-	-	-	1
jars						
canning, clear glass	14	3	-	1	-	13
jelly, clear glass	13	7	-	-	-	20
preserve, red earthenware	-	1	-	-	-	1
Skippy peanut butter, clear glass	1	-	-	-	-	1
sherds, glass						
aqua	7	15	10	3	-	35
clear	39	44	33	17	-	133
clear, purple tint	2	-	-	-	-	2
light green	-	-	3	-	-	3
wrappers, aluminum foil	1	1	3	4	-	9
Total Food Storage	88	78	49	45	-	260

Beverage

<u>Bottles</u>						
beer, brown glass						
base	1	-	-	-	-	1
top, screw finish	1	-	-	-	-	1
flask, brown glass, screw finish top	-	-	1	-	-	1
gin, clear glass, embossed	-	-	3	-	-	3
mineral water, grey stoneware	1	-	-	-	-	1
Nesbitt soda, clear glass	9	-	-	-	-	9
unknown type						
base						
dark green glass	-	-	1	-	-	1
clear, embossed	-	1	-	-	-	1
top, "black" glass	-	-	2	-	-	2
closures						
pull tabs, aluminum	11	1	-	-	-	12
screw cap, aluminum, Shasta	1	-	-	-	-	1
sherds						
ceramic, stoneware, buff	1	-	-	-	-	1
glass						
brown	77	25	9	5	-	116
"black"	7	5	3	-	-	15
bright green	5	-	5	-	-	10
dark green, embossed	-	-	-	1	-	1
olive green	1	9	13	6	-	29
Total Beverages	115	41	37	12	-	205

Sitka NHP
Old School N15E1.5
Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	Total
<u>Food Serving</u>						
plates						
porcelain, polychrome painted	-	-	1	-	-	1
whiteware, brown transfer	-	-	1	-	-	1
sherds, ceramic						
porcelain						
lustre, pink	1	-	-	-	-	1
lustre, gold, and red paint	1	-	-	-	-	1
polychrome, painted	-	1	-	-	-	1
undecorated	1	2	3	3	-	9
whiteware						
transfer print, brown	-	2	1	2	-	5
transfer print, blue	-	1	2	-	-	3
undecorated	1	5	6	6	-	18
yellow ware						
banded, blue and white	-	-	-	1	-	1
undecorated	-	-	1	-	-	1
stoneware						
white	-	1	-	-	-	1
grey, salt glazed	-	-	-	1	-	1
"shot glass", undecorated yellow ware	-	1	-	-	-	1
Total Food Serving	4	13	15	13	-	45
<u>Food Remains</u>						
Bone						
deer, ribs	14	-	-	-	-	14
unknown animal	-	-	-	1	-	1
Vegetable remains						
coconut shell	1	-	-	-	-	1
peach pit	-	1	-	-	-	1
Other, bubble gum	1	-	-	-	-	1
Total Food Remains	16	1	-	1	-	18
<u>Pharmaceutical</u>						
panelled glass						
aqua	2	-	-	-	-	2
clear	10	-	-	-	-	10
Total Pharmaceutical	12	-	-	-	-	12

Sitka NHP
 Old School N15E1.5
 Artifact inventory

DOMESTIC ARTIFACTS	L.1	L.2	L.3	L.4	L.5	Total
<u>Housekeeping</u>						
Clothespins						
wood	1	-	-	-	-	1
plastic	1	-	-	-	-	1
Total Housekeeping	2	-	-	-	-	2

Sitka NHP
Old School N15E1.5
Artifact inventory

STRUCTURAL AND HARDWARE ARTIFACTS

	L.1	L.2	L.3	L.4	L.5	Total
<u>Window Glass</u>						
plain	876	253	120	44	1	1294
pressed	-	-	-	-	1	1
Total Window glass	876	253	120	44	2	1295

<u>Nails</u>						
cut	1	2	2	1	-	6
in wood	-	1	-	-	-	1
spikes	-	1	-	-	-	1
wire	13	10	8	12	-	43
indistinguishable	-	6	6	2	-	14
Total Nails	14	20	16	15	-	65

<u>Materials</u>						
glazing, window	31	1	4	-	-	36
mortar	1	9	-	-	-	10
shingle, asbestos	1	-	-	-	-	1
tar paper	3	-	-	1	-	3
Total Material	36	10	4	-	-	50

<u>Utilities</u>						
<u>lighting</u>						
lamp glass	-	1	-	-	-	1
light bulb glass	1	3	-	-	-	4
wire, insulated	-	-	1	-	-	1
<u>sewer</u>						
drain plug, plastic	1	-	-	-	-	1
pipe, ceramic	1	-	-	-	-	1
Total Utilities	3	4	1	-	-	8

Sitka NHP
Old School N15E1.5
Artifact inventory

STRUCTURAL AND HARDWARE ARTIFACTS

	L.1	L.2	L.3	L.4	L.5	Total
<u>Hardware</u>						
bracketts, cuprous	3	-	-	-	-	3
gaskett, rubber	1	-	-	-	-	1
nut, on short bolt	1	-	-	-	-	1
screw, ferrous						
appliance	-	1	-	-	-	1
chromed dome	1	-	-	-	-	1
wood	2	-	-	-	-	2
staple, ferrous	1	-	-	-	-	1
washer, rubber	1	-	-	-	-	1
wire, ferrous	2	-	-	-	-	2
Total Hardware	12	1	-	-	-	13

L.4	L.5	Total
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Sitka NHP
Old School N15E1.5
Artifact inventory

ACTIVITIES ARTIFACTS	L.1	L.2	L.3	L.4	L.5	Total
<u>Education</u>						
crayon, purple	1	-	-	-	-	1
pencil						
wood parts	4	-	1	-	-	5
carbon core	1	-	-	-	-	1
cuprous eraser cases	2	1	-	-	-	3
eraser	1	-	-	-	-	1
Total Education	9	1	1	-	-	11
<hr/>						
<u>Holiday Celebration</u>						
Christmas tree tinsel	1	-	-	-	-	1
Total Holiday Celebration	1	-	-	-	-	1
<hr/>						
<u>Machinery</u>						
Large ferrous machine part	-	1	-	-	-	1
Total Machinery	-	1	-	-	-	1
<hr/>						
<u>Metal Working</u>						
slag	-	-	-	1	-	1
Total Metal Working	-	-	-	1	-	1
<hr/>						
<u>Transportation</u>						
Automobile wheel	-	-	-	1	-	1
Total Transportation	-	-	-	1	-	1
<hr/>						

Sitka NHP
Old School N15E1.5
Artifact inventory

UNCLASSIFIABLE ARTIFACTS	L.1	L.2	L.3	L.4	L.5	Total
Cuprous						
devises	1	2	-	-	-	3
sheets	-	2	-	-	-	2
Ferrous lumps	1	-	16	8	-	25
Plastic						
straps	3	-	-	-	-	3
miscellaneous	10	2	2	-	-	14
Total Unclassifiable Artifacts	15	6	18	8	-	47

APPENDIX C

DATES OF TEMPORALLY DIAGNOSTIC ARTIFACTS

Dates given for the artifacts listed below may be subject to debate by other archeologists. It is quite certain that many of the dates may be revised as more comparative material is made available. In most cases, the period of most frequent occurrence is listed. It is recognized that most of the artifacts listed below are still made today, even if in very limited quantities. In some cases, also, the date of invention precedes the date of wide public availability by several decades. The references cited are other places where the dates are discussed in detail. Where no reference is given, the knowledge has been gained through the author's general experience with the artifacts.

<u>artifact</u>	<u>dates</u>	<u>references</u>
CERAMICS		
creamware	1760-1820	Noel Hume 1970:
pearlware	1790-1890	South 1972:85 Price 1979:10
whiteware	1820-present	Noel Hume 1970:130-131 Hughes 1959:37 Price 1979:11
ironstone (cold grey)	post-1850	Price 1979:12 Lofstrom 1976:24
decalcomania	1900-present	Wegars 1981:121 Goodwin, Yakubik and Gendel 1984:132
colored glazes (Fiesta ware)	1930-present	Wegars 1981:120
colored pastes (yellow ware)	1830-1925	Wegars 1981:120 Goodwin, Yakubik and Gendel 1984:132
sponged	1820-1860	Price 1979: 19-20
spatterware	1880-1920	Goodwin, Yakubik and Gendel 1984:132
transfer printed		Price 1979:19
blue, black, sepia	1780-present	Hughes and Hughes 1968:150-151
other colors	1820-present	Noel Hume 1973:247
multi-colored	1840-present	Godden 1963:115 Blee 1984:73-74
stoneware mineral water bottles	1830-1900	Wilson 1981:32 Munsey 1970:139

<u>artifact</u>	<u>dates</u>	<u>references</u>
GLASS		
aqua	1830-1910 (in use as early as 1800)	Ward, Abbink and Stein 1977:240
"black"	pre-1885	<u>ibid.</u> 240
brown	1880-present (available much earlier)	<u>ibid.</u> 240
bright green (7-up)	1920-present	<u>ibid.</u> 238
clear	1930-present (available by 1800)	<u>ibid.</u> 240, Firebaugh
purple tinted (sun exposed)	1880-1917	<u>ibid.</u> 240, Firebaugh
stippled	ca. 1950-present	
opaque colored (milk)	1870-present available 1800	DiBartolomeo 1970: ix-xi
applied color label	1934-present	Ward, Abbink and Stein 1977:
pressed glass (heavy, unrefined)	1870-present (available 1820)	McKearin and McKearin 1941:333, 354 DiBartolomeo 1970: ix-xi
OTHER ARTIFACTS		
ball clay pipes	1570-ca. 1900	Noel Hume 1970:269
cigarette filters	1950-present	Encyclopaedia Britannica 1973
celluloid buttons	1869-1930	Luscombe 1967: 36
glass marbles (machine made)	1901-present	Randall 1971:105
light bulbs		
clear	1880-present	Ward Abbink and Stein 1977:237 Lorrain 1968:44
frosted	1925-present	Encyclopaedia Britannica 1973

<u>artifact</u>	<u>dates</u>	<u>references</u>
OTHER ARTIFACTS (cont.)		
nails		
hand wrought	pre-1800	Fontana and Greenleaf 1962:55
cut	1790-present	<u>ibid.</u> , 55
wire	1890-present (available 1833)	<u>ibid.</u> , 48
plastic	1940-present (available 1833)	Encyclopaedia Britannica 1973
pull tabs	1965-present (available 1955)	Ward, Abbink and Stein 1977:250
styrofoam	ca. 1960-present	Encyclopaedia Britannica 1973

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APPENDIX D: LIST OF MAKERS MARKS

Unit	Level	Group	Class	Morphological Design	Technomorphology	Mark	Date
N4 W12	6	Domestic	Food Serving	whiteware sherd	black printed	royal arms	n.d.
N4 W22	3	Domestic	Food Serving	whiteware sherd	blue printed	Copeland	1847-1867
N8 W40	6	Domestic	Food Storage	aqua glass sherd	embossed	"PA"	n.d.
N23 W50.4	2	Domestic	Food Storage	aqua glass sherd	embossed	"SA"	n.d.
	3	Domestic	Food Serving	whiteware sherd	black printed	royal arms and "S MAN Co."	n.d.
N0 W2	2	Domestic	Pharmaceutical	aqua glass sherd*	embossed	"INGE/_ & CO."	n.d.
N20 W1	3	Domestic	Pharmaceutical	dark olive green glass sherd, panelled	embossed	"UDO"	n.d.
	3	Structural	Materials	red ceramic tile	molded	"U.S.E.T. Co. INDIANAPO"	n.d.
	4	Domestic	Food Serving	Plate fragment whiteware sherd	impressed	"THOMAS HUG_ BURSLEM"	1860-1876
	4	Domestic	Pharmaceutical	aqua glass sherd*	embossed	"G/_ATES/_ OPRIE_"	n.d.
	4	Domestic	Pharmaceutical	panelled olive green glass sherd	embossed	"p"	n.d.
N14 W5	3	Domestic	Food Serving	whiteware sherd	black printed	Wheeling Pottery	1879-present
	3	Domestic	Pharmaceutical	aqua glass sherd	embossed	"L"	
	5	Domestic	Food Serving	whiteware sherd	black printed	John Edwards and Co.	1847-1900
	5	Domestic	Food Serving	clear glass tumbler base	molded	Libbey Glass Co.	1955-present
N14 W5	7	Domestic	Food Serving	whiteware sherd	blue printed	Copeland and Garret	1833-1847
N15 E1.5	2	Domestic	Beverage	clear bottle base	embossed	"MADE IN /U.S.A." "D-12/67-4"	1967(?)
	3	Domestic	Beverage	clear glass sherds	embossed	"LONDON GIN"	n.d.
	4	Domestic	Food Storage	clear glass sherd	embossed	"ALE"	n.d.
	4	Domestic	Beverage	dark green sherd	embossed	"VIE"	n.d.



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Demco, Inc. 38-293

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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